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# MODERN GYMNAST;

BY

CHARLES SPENCER.

WITH

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PRACTICAL ILLUSTRATIONS.

LONDON:

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THE

# MODERN GYMNAST:

BEING

## PRACTICAL INSTRUCTIONS

ON THE

HORIZONTAL BAR, | VAULTING HORSE,
PARALLEL BARS, | FLYING TRAPEZE,

ETC. ETC. ETC.;

WITH A DESCRIPTION OF THE APPARATUS,

AND

HINTS ON SOMERSAULT-THROWING.

BY CHARLES SPENCER.

WITH ONE HUNDRED AND TWENTY PRACTICAL ILLUSTRATIONS.

LONDON:
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# PREFACE.

HAVING often been requested to give instructions in the use of Gymnastic Apparatus, and being otherwise fully engaged, I have just jotted down the following descriptive remarks; being well aware, at the same time, of the difficulty of teaching anything of the kind upon paper, but in the hope that they may be useful to those who really wish to improve themselves; and with the wish that the taste for those manly recreations may rapidly spread, until the systematic use of them becomes the rule rather than the exception.

CHARLES SPENCER.

LONDON, *April*, 1866.

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# THE MODERN GYMNAST.

## CHAPTER I.

### INTRODUCTORY.

WHEN Lord Byron was practising the "noble art of self-defence" with John Jackson, the celebrated teacher, in a first-floor in Piccadilly, some fifty years ago, we may imagine the scene presented. The noble poet and the professional, both flushed with the exercise, perhaps in sparring attitudes; the windows thrown wide open, and the chairs and tables cleared out of the way, and everything generally topsy-turvy, and presenting a *coup d'œil* of most admired disorder.

Let us endeavour to picture the astonishment of a staid, decorous, elderly visitor on entering the room, and having the luck, perhaps, to witness the wind-up of a lively rally. "What good," he might say, "can this possibly be?" Of course he would be told that it was for the purpose of opening the chest, exercising the muscles, invigorating the system generally, and perhaps also to let off a little superfluous energy.

In the same manner, when I lately took a friend of mine to witness a great gymnastic fête, and we saw some of the performers revolving round a horizontal wooden bar at arms' length; others sitting on the bar, and continually falling backwards, passing underneath, *and coming* up again in their original position; and all

engaged in the most picturesque and graceful, as well as strengthening and health-giving performances, instead of being struck with respectful admiration, he asked, in rather a derogatory manner, "What is the good of it all?" And thus those who have never given any attention to gymnastics are totally unable to see any use in it; whereas, if they would only begin with a little gentle practice, a liking for it would be induced, and in time (of course by keeping to such exercises as suit them) they would feel the great benefit arising from it. And, in fact, we all know (who care to inquire) that the word "gymnastics" itself is derived from the Greek, and means "naked," or very thinly clothed; so that every time a man takes off his coat and digs in his garden, he is performing gymnastics, although he would be very much surprised to hear it.

But with all due deference to these objectors, their animadversions were anticipated two thousand years ago; and what would be thought now of such a scene as that presented by the interior of a gymnasium of that time as described by Lucian, in his well-known dialogue between Aristarchus and Solon?

The former, on being taken to see the young men practising, exclaimed, "What is it your youths are doing? some twining their limbs together to endeavour to trip each other up; others are throttling and striking, or rolling in the mud like hogs; yet, just now, while they were stripping, I saw them all in a very peaceable, grave, and good-natured manner, scraping and oiling each other's limbs, yet of a sudden, I know not upon what quarrel, they started up, took their distance, and began to butt like rams. See there, one has *pitched his fellow off his* legs by a cross-buttock, and

then throwing himself upon him, prevents him from getting up, and drives him deeper into the dirt, till grasping him with both his legs tightly, he digs his elbow into his throat to choke him, while the poor wretch below, with all his might, is thumping his opponent's shoulders."

This presents us with a very curious picture of some of the gymnastic exercises of those days, but I am sorry to say that it gives us a very poor idea of the love of fair play of the Greeks of that period. He goes on: "Two are standing upright in that corner, covered with dust, and beating and kicking each other; there now, that one has got a blow on the jaw which has shattered all his teeth, and filled his mouth with sand and blood, while the man in authority" (or instructor) "who stands by, instead of checking the fray, does his utmost to encourage it, and praises the striker for his dexterity. What can be the good of it all I cannot possibly divine, but to me it appears sheer madness?"

Solon tells him that the place is not a madhouse, but a gymnasium, dedicated to Apollo Lyceus, and then describes the various exercises. "Those in the mud are wrestling, those in the corner are boxing, others are jumping, or racing, or throwing the spear." Aristarchus laughs heartily when told that those who acquit themselves best sometimes receive prizes in the shape of an apple, an olive, or a sprig of parsley (somewhat different to the silver cups, &c., now given to the winners at our gymnastic festivals); and in spite of Solon's assurances that these pleasing toils generate patriotic bravery, love of glory, and honourable pride, even at the close of a long discussion he by no means dissembles his lack of conviction, and looks incredulous as to *the great effects.*

Now if our modern gymnastic exercises were at all similar to those just described, it would be no wonder if objection were taken to the roughness of the play, and consequent danger (but we must bear in mind that among the Greeks they were wholly intended to inure the young men to the dangers of war); but if we pay a visit to one of our large modern gymnasia, we shall witness a very different spectacle.

And here let me say a few words as to the supposed dangers of gymnastics. Now we have sometimes been told that we must not attempt certain performances, because they are fraught with danger, and so on; but the danger really consists in endeavouring to perform them without sufficient previous practice, and upon apparatus constructed in such a manner as to render it almost impossible to execute the simplest movements with safety; in which case accidents will of course occur, in the same manner as they do in learning swimming, wrestling, fencing, cricket, or other manly exercises. All athletic sports and games of this description are dangerous to those who commence injudiciously, and without accustoming themselves to the preliminary exercise of them. What would be thought of any one who began to learn to swim by jumping into deep water by himself? or who would expect to become a good cricketer by beginning with "keeping wicket" to a fast bowler?

On the other hand, let us visit a large and well-conducted gymnasium, fitted up with well-proportioned apparatus; let us take for example the "Deutsche Turnhalle," or German Gymnasium, near King's Cross. Although called German, I believe a majority of its members are English, but still the greatest credit is due to the Germans who originally established it; *and who, commencing* a few years ago in a compara-

tively humble way, may now boast of possessing one of the finest buildings of the kind, and one of the most numerous body of subscribers, in this country.

Here we see, in a noble central hall, spacious enough to allow three or four hundred to practise at one time, a large number of gymnasts going through the most varied exercises; some jumping over lines fixed between upright standards, the height being increased at each jump, others climbing plain or knotted ropes hanging from the roof girders about fifty feet in height; some engaged in vaulting on to or over the horses; two embryo athletes are seen enjoying a mild game at "see-saw," only that instead of sitting, they are hanging by their arms.

And here let us observe that gymnastics is perhaps the least selfish occupation of the kind we can engage in, as there is "something for all," and we may see youths busily practising light exercises suitable to their powers, as well as stalwart men engaged in feats requiring the greatest amount of strength.

In one corner is seen a knot of choice spirits congregated round the horizontal bars, on which some very clever and remarkable feats are executed; the performances of some of the gymnasts indeed being fairly entitled to challenge comparison with anything ever attempted in this line (some of which I shall hereafter describe): while ever and anon an athlete is seen, after leisurely proceeding a short distance, to turn round, and taking a short run, to execute a very creditable "forward" or "back," as the somersaults are called.

But all these exercises are executed in the easiest manner, and in a style calculated to afford pleasure to the *numerous* spectators in the visitors' galleries (among

whom it is pleasing to notice a number of the fair sex, relatives or friends of those engaged below), and the scene altogether is very different indeed from that presented by the rough and dangerous sports of the Greek Lyceum before described. And among all the best feeling is observable, the crude and abortive efforts of the beginner, and all shortcomings in execution, being treated in the most forbearing and encouraging manner.

Now the practised gymnasts whom we have seen going through their elaborate and finished performances, with an entire freedom from accident, have attained to this degree of excellence by practice on apparatus constructed by those who thoroughly understand the use of it; and as without proper appliances it is almost impossible to improve, so it is not to be wondered at that a liking for gymnastic exercises has been so long in taking root in this country. But of this I shall speak further on.

I will only say now that even when accidents do occur in practising gymnastics (as perfect safety cannot be insured in any situation, even in walking the streets), the skill of the performer greatly lessens the danger, as excellence in these exercises has such an effect in giving confidence and presence of mind, that if a gymnast should make a slip, or should anything give way, he, as it were, "gathers" himself or "puts himself together" in the act of falling, and is therefore much more likely to come down safely, either on his feet, or in some way which is not likely to injure him, and more especially if he has attained any amount of skill in the art of somersault-throwing or "tumbling," to which I shall draw your attention in *a subsequent chapter.*

I knew an instance of a person falling from the great height of seventy feet, but, from being a practical gymnast, he came down in such a manner as to receive comparatively slight injury; whereas, to any one unacquainted with gymnastics, fatal injuries would most likely have been the result.

And when we read of the dangers of shipwreck or fire, consider how much better chance of escape those who have trained themselves to use their limbs will have over those who have not. Depend upon it, many lives have been lost in shipwreck through the want of the skill to climb a rope or take a leap; and in case of fire, how many are there who could lower themselves down a rope from a three or four story window, without coming down by the run? Whereas at our gymnasia you will find numbers, who from having accustomed themselves to use their arms, legs, and feet, are able to climb a rope to a height of upwards of fifty feet, and lower themselves again with the greatest ease.

But although almost all manly exercises might be included in the term "Gymnastics," including Walking, Running, Wrestling, Boxing, Jumping, Fencing, Cricket, Quoits, Golf, Throwing the Hammer, &c.; yet as nearly all of these subjects have been treated of in books especially devoted to them, and also as the term is now in a great degree understood to mean only those exercises which are performed with apparatus of some kind (except somersault-throwing or tumbling), I do not intend to drag my readers all through the list, or to give any attention to the numerous new-fangled notions, such as Musical Gymnastics, Vocal Gymnastics, Parlour Gymnastics, Indian Sceptre Exercises, &c. These are all very well for girls and boys and delicate *persons, but* every one who takes to these exercises with

any zest at all will soon require something further, and therefore I shall devote the principal portion of this work to gymnastics which are rather more advanced, and which excite a greater amount of interest in their performance. And also because some of the first movements on the apparatus are so simple and easy, that they will require no preliminary drill whatever, and may be gone through by those who have never seen any gymnastic exercises at all, if there are any such benighted individuals.

And as for extension drill, a solitary instructor may direct and lead the exercises of hundreds of gymnasts, from the merest tyro up to those who are able to accomplish the most difficult feats.

Not that I mean to undervalue extension drill and other preliminary exercises of that kind in their proper place, when they are of great benefit, and particularly from being generally practised in class, as it is much more agreeable to see a number of soldiers at their drill than to witness a solitary individual being put through his "facings" or practising the "goose-step."

One of the best examples I ever saw of this was at a large gymnasium in Paris, where a class of about fifty gentlemen (of ages varying from thirty to fifty years) were being put through the evolutions, neatly and becomingly attired in blue trousers and slippers.

At the word of command they performed a series of simultaneous movements, and at the close (many of them being in a state of moist heat), most of them finished by taking tepid baths, which were a part of the establishment, and in which particular they resembled in a degree the old Roman gymnasia. No doubt many invalids are restored to health and greatly *strengthened* by these methods.

My object, therefore, is to give a description, in a plain and practical manner, of the various performances which may be executed on the horizontal bar, the parallels, the vaulting horse, flying trapeze, &c., some of which are entirely of modern origin, having been in use but a very few years, and in the exercises on which almost every one of fair average strength and agility may, with moderate perseverance, attain excellence.

I shall also give a chapter upon those advanced exercises which may be performed without apparatus, including somersault-throwing, commonly called "tumbling," for those who are inclined to this branch of gymnastics, and who possess the necessary qualifications.

And one reason which especially inclines me to this course is, that all the writers on the subject, from Peter Clias downwards, seem to have copied one another, and have given us a series of elementary treatises, containing little more than the A B C of gymnastics; from which, however, we must except some of the German and French writers, who appear to have gone to the other extreme, and have produced ponderous and elaborate works, more calculated to frighten the inquiring amateur than anything else, but still without touching on the more modern exercises. And thus it is that comparatively little new experience is brought to bear upon the subject.

"But," says the courteous reader, "surely you are going to give us the history of gymnastics? Everybody does that." Why, of course, I might, if I liked, keep in the beaten track, and give the whole account from the earliest periods, from the first mention of it in the "Iliad," in times almost if not quite prehistoric, where the Grecian soldiers are described as

having landed from their ships, and being engaged in playing quoits and javelin-throwing on the beach; and then, later, how games were instituted and dedicated to the gods, and were conducted with the greatest ceremony, rewards and civil distinctions being conferred on those who acquitted themselves best. Only fancy, now-a-days, the freedom of the City of London being presented to the best performer at a gymnastic festival! And so on, to an elaborate description of the Roman gymnasia, which were immense buildings for games, &c., with luxurious baths attached, and which afterwards came to include the whole system of education.

Then I might tell how gymnastics were made a branch of medical science for the cure of diseases, that is, to counteract the consequences of the laziness and luxury which crept in as the Roman empire grew more powerful and opulent; and which goes to prove the truth of the old saying, that "there is nothing new under the sun," for have we not seen elaborate systems to cure nearly all "the ills that flesh is heir to" by certain long-continued movements?

Then we come to the early history of our own country, when there was hardly any occasion for gymnastics, as fighting and other open-air exercises were practised by high and low, and when reading and writing were excessively rare accomplishments.

And after this, the decay in bodily powers consequent upon the introduction of gunpowder, when armies were composed of mere drilled machines, and then to the neglect of these exercises following on the enormous increase of our commerce, when our citizens, having paid soldiers to fight their battles, led much less active lives, and when also the increase of the learned professions induced more sedentary employment.

But all those who wish to become acquainted with these details can read for themselves, and therefore I shall merely notice what may be called the revival of Gymnastics in our own times, which began in Germany, and was consequent, we are told, upon the spirit of resistance evoked by the conquests of the first French Empire; and, by the way, I very much doubt if there is not something slightly resembling that feeling still remaining.

And still more recently great interest is springing up in England on the subject; our own country, for reasons to which we shall presently allude, being rather late in the field, the French having adopted gymnastics as a part of their system of military training some time since. This interest we see exemplified in the large and important gymnasia built or building in the metropolis and some of our principal towns, and the great increase within a very few years of the number of accomplished gymnasts among our young men.

But more especially has it been assisted by the establishment of our volunteer force, many members of which are evincing the greatest interest on the subject; some of the head-quarters of the principal corps being provided with capital gymnasia in their spacious drill-sheds; and as the best modern apparatus is constructed in a manner sufficiently strong and yet portable, it is easily put up and taken down if the space is required.

And in the army the subject is attracting a share of attention, spacious buildings being attached to some of our large garrisons, although they are susceptible of great improvement in the appointments.

However, I will not detain you with the history of gymnastics, but come at once to the practice of it.

*But I must tell* you, that although I speak of the

performances on the apparatus, which may be considered somewhat surprising and difficult, I do not wish to recommend, in any manner, anything that savours of the "circus."

Now it is a very trite maxim, that although moderate exercise is beneficial, yet when carried to excess it becomes most hurtful to the system; and, often repeated, tends greatly to shorten life: and we are all acquainted with the fact, that acrobats and pantomimists, and those who habitually go through violent performances, in many cases sink into premature old age, and as a class are remarkably short-lived, although it may, perhaps, be partly attributable to other temptations to which they are much exposed. This is not peculiar to modern times, as Plato and Galen, and other early writers, notice the bad results ensuing from a life of violent exercise.

Galen, one of the first writers on medicine, tells us that the athletes of his time were gluttonous and heavy, and that they seldom kept in good condition for more than five years; and Plato describes them as cultivating a robust body, and leaving the mind in complete neglect. Of course this is the other extreme, and may be paralleled, perhaps, in the case of some of the athletes (or pugilists) of our own day.

But when we read that Galen himself, after writing against manly exercises, put out his shoulder in practising wrestling at the ripe age of thirty-five, we can only regret that he did not commence gymnastics when quite young, and thus gradually become proficient; and then he would not have been so likely to injure himself.

But of "Theatrical Gymnastics," as we may call the *various exhibitions* of the kind that have been per-

formed at our places of amusement during the last few years, I must say that it is very difficult to see the object, except the mere amusement of the hour; and really some of them are much more painful than amusing.

What is the use, for instance, of a man walking on the ceiling like a fly, or throwing fifty or sixty somersaults in succession, or drawing his body through a small ring while lying on the ground, holding glasses of wine in his hands all the time, and finishing by drinking them, which, indeed, really seems the only sensible part of the exhibition?

The only performance of this kind which really seems at all suitable for our imitation is that of the "trapeze," called, from the wonderful exhibitions of Leotard and others, the "Flying Trapeze." And here again, we need only expect or wish for a limited amount of excellence, as the great master named must of course always be far ahead of his imitators. But I shall speak more fully on this subject when we come to the trapeze itself. And as to Blondin, it is only when we find any one possessing so wonderful a *nerve* as his that we may look for a similar performance. No! let us leave these exhibitions to those who are obliged to depend upon them for their subsistence; although, at the same time, I must say that I am acquainted with many gentlemen—amateur gymnasts—at the large gymnasia in London, Manchester, Liverpool, &c., whose performances are quite good enough to be very attractive as exhibitions; and I have no doubt that many of the proprietors of our places of amusement would be glad to obtain their services, if it were practicable.

The true method of practising gymnastics is, to *commence each one* with a suitable and gentle exercise;

increasing in difficulty in regular degree, according to the strength and agility of the learner; always taking care not to confine himself to movements which only exercise one set of muscles, but by the use of different apparatus to bring all parts of the frame into play; as I have fallen into this error myself, from having been too partial to certain performances. And though, of course, all cannot expect to attain to the accomplishment of the most difficult feats, yet we may depend upon it, that there is no one, from boys whose powers are not yet developed, to elderly persons whose strength is on the wane, if they possess an average amount of muscle, but would find themselves greatly benefited by a course of suitable and judiciously-directed gymnastics.

And we must also bear in mind, that these exercises may be made very attractive, especially to the young, as boys in health have a natural liking for all kinds of active motion, such as climbing, &c. (and, indeed, sometimes it seems almost impossible for them to keep still); and thus, although perhaps the motive to these exertions may be only emulation, or the wish to perform certain feats of more or less difficulty, the result must be, under judicious direction, very beneficial.

I remember on one occasion, having been engaged in superintending the erection of some apparatus at a large school near the metropolis, and the boys, seeing me examining it in company with the gymnastic instructor, to make sure that it was securely put up, and knowing me to be a gymnast, requested me to oblige them with a specimen of what could be done in that way. This of course I immediately did, and *showed them a few* of the advanced exercises on the

horizontal bar and parallels, to the immense delight of the pupils, but also to the intense horror of the instructor, who considered them too dangerous for them to attempt.

When I had finished, the boys came thronging round me, and asked me to teach them these amusing exercises, and I showed them the way to do two or three which I considered most suitable for their powers, and several of them proved such apt scholars that they could perform them in a very creditable manner before I left.

Now mark the result! About three weeks afterwards I had occasion to go there again, when rather to my surprise, I found that nearly all the boys could do the feats I had shown them on the previous occasion; and they begged me to show them some more of my "jolly exercises," as they somewhat irreverently termed them, saying, "Oh! there is no amusement in what Professor So-and-so shows us, stupid hand-over-hand exercises under the bar; we really begin to think that he cannot do anything else."

And therefore I strongly advise instructors of gymnastics to bear always in mind the importance of rousing the interest of young beginners, by setting them, as soon as possible, consistent with safety, to exercises which keep their attention alive, thus giving them something to amuse them while they are practising. And of course I do not mean to "put the cart before the horse," by setting them to do a "fall-back," or a "long swing," when they can hardly get on to the bar in a respectable manner, but by exercising them at the "giant's stride," "leg-swing," &c., &c., and everything of the kind which has some amusement or game connected with it. And really I

cannot see why some interesting games should not be invented for in-door gymnasia, as well as the elaborate "races," "squails," and "cannonades" of the parlour.

As I told you, my principal object in this work is not to show you what you can do already, but to bring before you those advanced exercises which you are anxious to learn. I now suppose you to have gone through the elementary exercises, that is, you can walk, run, jump, climb a rope or pole, and, in fact, do what almost any man in good health and of average strength can perform.

If I were to talk much to you about Calisthenics, I am aware you would treat me as you have done the books to which I have referred, and which give you a long and tedious dissertation on the advantages of standing on one leg, or raising the arms up and down, or nodding the head.

But we do exercises something analogous to these all day long, and when we read a book about them we say, "Very good exercises, but we do not care much about them, they are not exciting enough in these stirring times." Brown of course wants to equal Jones, and Jones has been emulating Robinson; and so from exercising together, all endeavour to improve; and from this reason the practice of gymnastics is one of the most social occupations conceivable, and begets a spirit of kindness and good fellowship.

And this is why I wish the young men of our day to practise these exercises, which afford amusement as well as benefit, and depend upon it, that as they improve in performance they will find their interest increase; and I hope the day is not far distant when we shall have spacious gymnasia in all parts of London *and our* large towns, and that they may be places

where young men may be attracted in the evening, and spend their time in a rational and invigorating manner, instead of patronizing amusements which are a complete waste of time and money, as well as detrimental to health.

But, as I told you previously, the great advances made within the last few years are due, in a great degree, to the improved quality of the apparatus, and I am convinced that nothing has so much retarded the spread of gymnastics in this country as the very ill-proportioned horizontal bars, parallels, &c., which have been hitherto used. Indeed, I may say, that nearly the whole of the apparatus erected in our public parks and elsewhere, has hitherto been practically useless.

And why is it? Because these places have been fitted up by persons who are not practical gymnasts; they may be very good at fencing, or whatever pursuit they have followed, but it is impossible for any one to give the right proportions to apparatus, unless he understands the use of it; and it would be just as feasible for me to attempt the manufacture of foils (knowing nothing about it), as for some of these professors to attempt the construction of horizontal bars and parallels. And in some of the elementary works bars of the diameter of two inches and a half are described, on which I am sure it would puzzle the cleverest gymnast to perform the simplest feats.

Now I wish you to understand that all the exercises I am about to describe to you, I have often performed myself, and I am acquainted with many gentlemen who can do them quite as well, and some better.

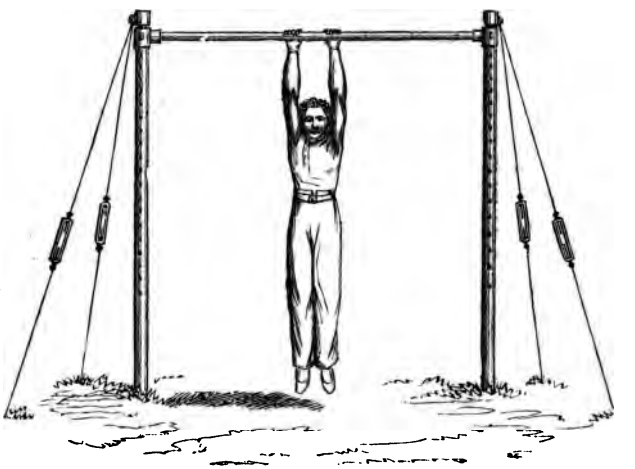
And if I am asked why I call this the "Modern Gymnast," it is because I know that when I began to give my attention to it, eight or ten years ago, there

were only myself and two or three friends (that I ever heard of) who practised anything but the simple jog-trot movements of the old school; and many exercises we now see done every day by numbers at our large gymnasia, would have perfectly astounded us at that time: and in fact, even now it is wonderful what surprise and admiration is produced among an audience by the performances on the horizontal bars, &c., by some of our best amateur gymnasts.

And I repeat, in concluding these introductory remarks, let me say that, without undervaluing general manly exercises or calisthenics, I address myself more particularly to those who require something further, and who, having seen these performances, wish to learn how to do them; and to them I beg to offer "The Modern Gymnast," feeling sure that, as this is the first attempt (that I am aware of) to bring advanced gymnastics before the public, any shortcomings that may be observed will be pardoned for the sake of the intention.

# CHAPTER II.

Fig. 1.



THE HORIZONTAL BAR.

The exercises on the "horizontal bar" (sometimes called the horizontal pole) being among the most useful and strengthening of gymnastic performances, and, perhaps, also the most varied and attractive, I shall treat of them first, and more particularly as the early movements are so very easy that they may be performed by the merest tyro in manly exercises. And, as I said before, embryo gymnasts are generally very fond of commencing with

something which looks showy, and which at the same time combines amusement with exertion.

In fact, on a bar which will shift up and down, and can thus be regulated to suit the height of every one, exercises can be performed almost as simple as the most preliminary forms of extension drill or calisthenics.

It is not necessary to describe all these movements, as any one without instruction can place himself under a bar, and pull himself up by his hands any number of times he chooses; and if often repeated, this will be of very great benefit to the muscles of the arms and body.

But, of course, these are natural movements, and it is not requisite to have an instructor standing by looking on, and therefore I shall only draw your attention to those exercises which require description to enable you to understand how they are done, and which, having seen accomplished, you are anxious to learn how to do yourself.

But, before we commence, let us see if the apparatus is of the right proportions, as it is not of the slightest use to attempt the exercises I am about to describe unless upon a properly-constructed bar.

And here let no one suppose that I set myself up as infallible, and think that no one can tell you what a bar should be like but myself; but I wish you to understand that everything in this book is the fruits of experience, and therefore I do not attempt anything purely theoretical, and you may depend upon it that what I tell you *may* be done on the bar, *can* be done.

In order to impress on you how imperative it is to attend to these details of construction, I will relate a circumstance which occurred to me lately, which will tend to show how easy it is for error and prejudice to *creep* in.

I lately visited a large gymnasium near London, which had been constructed and fitted up under the superintendence of a professor of gymnastics, and being known as a gymnast, I was asked to go through a few exercises on some of the apparatus, as there were some spectators present who took a great interest in these matters. Of course I immediately complied, and taking off my coat, was about to give them some idea of what might be done on the horizontal bar; but, to my great surprise and intense disgust, I was thrown off at the first trial.

On examining it to discover the cause, I found (not having noticed it previously) that the bar was eight feet in length, and of the barbarous thickness of two and a half inches.

Now, only fancy what a "leg-of-mutton fist" any one must have to get a firm hold of a bar of these dimensions! Of course there are some embryo giants, distant relatives, perhaps, of Chang or Anak, who could grasp such a bar (I mean, of course, in a sufficiently firm manner to swing round it), but even if they could, the great length would most likely give spring enough to render their hold very uncertain and unsafe.

Of course I immediately desisted, and on explaining the cause of my failure to one of the instructors, and saying what a pity it was to have such ill-proportioned apparatus in such a fine gymnasium, he replied, "Ah! it's regulations; we can't alter it."

"Well," said I, "I wont be done; I will have a turn on the parallels;" but here again I was baffled, as I found them worse than the other, for the bars were much too wide apart, and only a little more than three feet in height, so that I could not do anything upon them except a hand-balance and a few vaulting movements.

Now, as we generally consider that the shoulder of the gymnast should range with the upper side of the parallel bars, I can only suppose that whoever gave the dimensions for these had studied principally the convenience of little boys, or perhaps his mind's eye had wandered in the direction of General Tom Thumb; or it may be that, having suited Chang with the horizontal bar, he was kind enough to provide also apparatus for his familiar, the Chinese dwarf.

And I found the trapeze as bad as the rest, being merely a round bar of wood, hanging from two ropes at a height of about five feet from the ground; and the ropes being merely spliced round grooves at each end of the bar, it revolved with the hands, and therefore would inevitably let any one down at the first attempt to do anything upon it beyond a simple swing.

But perhaps, after all, it did not much matter, as the whole affair was so constructed, that on any one attempting to hang to it the body must drag upon the ground, and thus nothing could be performed upon it except by dwarfs; and thus it seemed as if we poor mortals of ordinary stature had not been considered at all in the fitting up.

It is in consequence of this mal-proportioned apparatus, as I said before, that it is given out that gymnastic feats of strength and agility are dangerous; and of course it is dangerous for any one to practise on apparatus which is only suitable for persons much above or below his own stature. I began on these clumsy affairs myself, but soon found out the error; and if I had always been condemned to it, I am afraid I should never have learnt anything worth describing to you.

*Now, I will* tell you what I consider the correct

proportions of the bar before you attempt to get upon it.

In the first place, I have found ash of a straight grain the best material for the bar itself, which should be made to shift up and down; and if for a public gymnasium, the uprights should fit firmly into iron sockets in the ground; but for private use, a bar supported as in Fig. 1. will answer every purpose, and also possess the advantage of being portable.

I much prefer this form of construction, and it is much steadier, as the principle is correct; the strength and rigidity being where most required; that is, at the *top* of the uprights; as in a bar fixed in the ground, if without stays, the strength must be at the *bottom*, and thus the furthest removed from the place of greatest strain.

In the bar shown in Fig. 1. the two uprights merely stand on the floor or ground; stays (or guys) being screwed into the floor (if in-door), or fixed to stakes driven into the ground (if out-door).

The height of the bar from the ground of course varies according to that of the gymnast, and the nature of the exercises. To get the full height, the best way is, to stand on tip-toes, and reach as high as you can, so as just to touch the lower side of the bar with *both* hands, and then when you hang by the hands, the toes will just clear the ground. It is not so well to have the bar too high, as it causes unnecessary fatigue, as some of the strength which is wasted in getting up would be found useful afterwards.

Having determined the height of the bar, the proper length and thickness are now to be considered. The length should be seven feet, and the diameter one inch and three-quarters, with a steel core one inch thick

running through the centre. If you have a bar without the steel core, the diameter must be increased to two inches, and the length reduced to six feet; but, although the bar is actually shorter, the spring will be greater, and the extra thickness will hinder so good a grip being taken.

The bar being now fixed in its proper position, requires to be put into good condition. Most likely there will be a little grease on it from previous practice, which it is highly important should be removed before commencing. This is done in the following manner. Take a wet cloth (without soap or soda, as any kind of alkali will raise the grain of the wood and make it rough), and rub the bar with it; then get a few feet of rope—I find thick sash line the best—give it one turn round the bar, and, taking hold of each end, rub it up and down, gradually moving it from one end to the other. The friction will dry the wood, remove the grease or dirt, and put on a good surface.

The bar being now in good condition, wash your hands perfectly clean, and you are now ready to commence. You will find that there is no *resin* required, which every gymnast is compelled to use if the bar is not kept in good order. The use of resin is bad for various reasons; it will dirty your hands, and if you have not practised much, it will cause blisters sooner than otherwise. I have sometimes seen the skin of hard hands torn, and wounds ensue, preventing further practice for some time. But if you are obliged to use resin, do it judiciously; powder a little, and rub only the *tips* of the fingers in it; avoid, above all things, getting it into the palm of the hands, as it will make them stick to the bar, and it is also very likely to *cause jerks in swinging*, and the grip will not be so

certain as when the hands move smoothly round. These details may appear rather tedious, but you will find them useful, as they apply to all apparatus where the wood is handled.

Now, there is another thing you must bear in mind; and that is, the way in which you must take hold of the bar.

Some say that you should take hold of it as you would a handle, with the thumb underneath; but I think that there is no doubt that the proper way is, the same as that in which a monkey holds the branch of a tree—the thumb on the same side as the fingers. If the thumb be underneath, in all ordinary swinging exercises it has a tendency to draw the fingers off; although in some few slow movements it may be under, yet, as a rule, it is better above.

An exception to this rule is, in case a small iron bar of about an inch in diameter is used, which is very rarely, and which is not at all to be recommended, as generally those who practise on it are unable to use any other. But I never put the thumb underneath myself, and I am acquainted with many who follow the same practice.

Now, if you will keep what I have said in mind, we will proceed to some of the exercises.

Jump up to the bar, and hang with the hands, the body and arms hanging perfectly straight, and feet close together, as in Fig. 1.

Hardly anything looks worse than to see the legs swinging about in all directions when you are performing any exercise.

To perform all feats quietly and easily, shows the finished gymnast; and so far from violent exertions *being the test of* difficulty, the reverse is generally the

case, and the easiest-looking feats are very often the hardest, and *vice versâ*. And besides, these irregular movements only tend to tire you.

Now, having hold of the bar with both hands, draw yourself up until the chin is above the bar; then lower the body until the arms are quite straight again.

Practise this exercise as often as you can without tiring, or until you can perform it six or eight times in succession, which you will not do until you have practised for some little time.

Beginners must now try a few gentle exercises, such as hanging by each hand alternately, the other close to the side.

Then begin to walk along the bar by the hands, taking alternate steps with them, making the steps as equal as possible, and keeping, as I said before, the legs hanging quietly down. Go in this manner from one end to the other, then reverse the hands, and back again.

FIG. 2.

Now draw yourself up with your chin above the bar, as in Fig. 2, and repeat the walk in this position.

*Next try a few* good swings forward and backward,

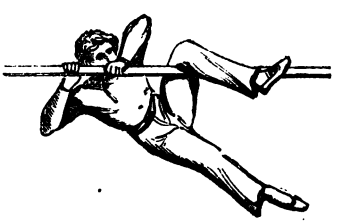
at arm's length. You will find that you will swing further each time, until you can swing your body almost into a horizontal position.

All these little exercises are to be repeated as often as possible, and they will help to strengthen the muscles, and accustom the hands to the feel of the bar. Now we will try

## TO GET ON TO THE BAR.

Draw yourself gradually up, as in Fig. 2, then suddenly drop the whole of the right side, raise the left leg and throw it over the bar as in Fig. 3; and with

FIG. 3.

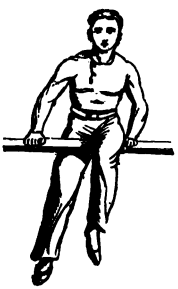


the hanging leg establish a good swing, which will bring you up over the bar, trying as much as you can to come up with the body as upright as possible, as in Fig. 4; as to scramble up on to the bar on your side or anyhow, although as much as can be expected the first time, is not at all what is wanted, and you must persevere until you can come up upright, if you wish to improve.

A young beginner will say, "But I cannot get my leg up to the bar at all, much less throw it over, and get right up." Of course you cannot at first, because you must have practice, and you must keep on trying

until you can do it, if you wish ever to do anything on the bar at all beyond hanging like a log.

Fig. 4.



There is no "royal road" to gymnastics (or to anything else worth knowing, that I am aware of), and though it may appear very easy to tell you to do these things one after the other in this way, yet you must be contented to creep on gradually, and be satisfied if you can accomplish even one of these exercises in a few days' practice.

Of course some will learn quicker than others, but all I can do is to tell you as well as I can how to go about these exercises, and the rest depends on your own energy and perseverance.

There is another method of getting on to the bar, by bringing the leg up through the hands, and with one good swing bringing yourself roundly up as in Fig. 4.

You may try either of these methods, but nothing but continued practice will enable you to master either of them; but when you do, and can get on to the bar in a respectable manner, you may consider you are making some progress.

*We now proceed to*

## THE LEG-SWING.

Being in your original position, as in Fig. 4, throw your right leg as far behind you as possible, at the same time slipping the other leg backward, and catching by the bend of the knee, as in Fig. 5; then throw

FIG. 5.

the head back with a good swing (keeping the arms straight), and you will thus make one turn backward round the bar.

You will find at first you are apt to make a half-turn too much; but after a little practice, you will be able to regulate the first swing so as to go once round, and come up into your first position with a good balance.

Next try two or three turns without stopping; but always endeavour to finish *above* the bar, as at starting. It is bad to stop, as in Fig. 6, as you are disabled for the next exercise.

For the forward swing, reverse the hands, keeping the whole weight of the body on the arms, throw the head well to the front, and with one plunge forward—keeping *tight hold* with the hands, and the body erect,

as in Fig. 7—you will make one forward revolution round the bar.

FIG. 6.

FIG. 7.

After some practice, you will be able to go round several times without stopping.

This exercise is actually easier than the former, but it requires more confidence, for the want of which you are apt to keep too close to the bar, and thus you do not get sufficient swing to bring you up again.

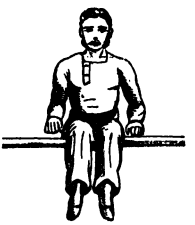
Practise both these exercises with right and left legs alternately.

## SITTING ON THE BAR.

Having accomplished the backward and forward leg-swing, we will now proceed to something a little more difficult.

You will now get on to the bar as in Fig. 4, with leg over; now try to balance yourself in this position without holding by your hands; having succeeded, take hold of the bar with both hands behind you, and pass the hanging leg over the bar into a sitting position, as *in Fig. 8.*

FIG. 8.



Now practise a few different balances while sitting; that is, with the bar under different parts of the thigh.

Try to sit almost straight, and again with the bar just within the angle of the knee. This must be done without touching the bar with the hands.

We now come to

## THE SIT-SWING.

This is so called, from its being a swing performed while sitting on the bar, and we will commence with the backward swing.

The "sit-swing" is somewhat similar to the leg-swing, but of course more difficult; as in the latter the weight of the body is mostly on the leg, but in the present exercise the whole weight is thrown upon the arms, therefore requiring more strength.

While sitting on the bar, as in Fig. 8, but holding with the hands, straighten the arms, and let them support a great part of the weight of the body; now throw yourself backwards with a good swing, still keeping a firm hold of the bar with both hands.

Now the object of this movement is, to go quite round the bar in the swing, and thus make one com-

plete revolution, which is called the "sit-swing backward;" but of course no one can expect to accomplish this feat at once.

The first few times you attempt it, you will most likely find yourself hanging, as in Fig. 9, with the

FIG. 9.

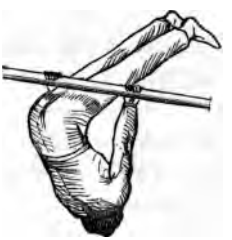


FIG. 10.

weight of the body beneath the bar, and with the momentum of the swing gone.

In this case, all you can do is to let your legs pass through your arms, as in Fig. 10, and thus drop on to the ground; but you must repeat the movement until you are able to swing quite round.

The way to practise this is, to swing about three-quarters round, and then to come back into the sitting posture again; this will give you confidence, and after a time you will feel yourself able to go all the way round, and to come up into your original position.

For some time you will find that you will come up in rather an awkward manner, without having swing *enough to* balance yourself, and therefore you will fall

forward again; in which case you must be prepared to let go with the hands, and to throw yourself off the bar on to your feet; or, what is much better, to have some one standing in front, in readiness to catch you as you come off.

But you may take comfort, for when you can get thus far, the feat is nearly achieved; and after a few more trials you will be rewarded by feeling yourself able to accomplish the "sit-swing."

In the forward sit-swing, the first start is the principal thing, as the impetus gained will be sufficient to bring you up again. In order to get a good start, you must raise the body as far away from the bar as possible, supporting the whole weight on the arms, as in Fig. 11; now throw the chest out and the head back,

FIG. 11.

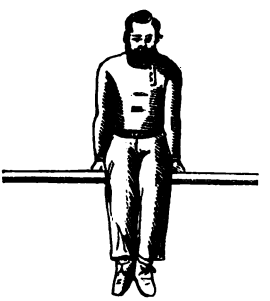
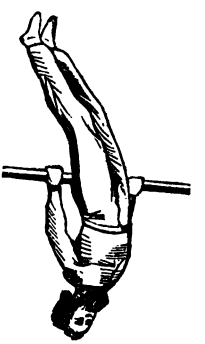


FIG. 12.

with the legs rather straight, then with a good plunge forward, keeping the arms straight as in Fig. 12, you will go quite round. That is to say, you will in time, for you must not think of succeeding at first in any of these feats, but perseverance will soon enable you to accomplish them.

You will find in practising this exercise, that some of your strength will be expended in getting on to the bar again after each failure. I will now show you a very good way of getting into the sitting position again, while hanging as in Fig. 9. Straighten the body as in Fig. 13, and draw your centre of gravity a little above

FIG. 13.



the bar, then, bending the body again slightly, you will roll quite over so as to come into a sitting position again.

This movement is called the "Plymouth," but why, I really cannot say; but I should fancy its derivation is not at all likely to be from the Greeks, about whom we hear so much in accounts of gymnastics.

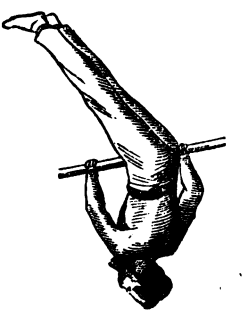
I may here say, that all the names of exercises which I give, and some of which may sound rather strange to the uninitiated, are actually in use among those who perform these feats, and are not invented for the purpose of description.

The next performance to which I invite your attention, is of rather an ambitious character, and is called

## THE SHORT SWING, OR CIRCLE.

In the first place, you must commence by getting on to the bar in the following manner:—Draw the chest up to the bar as in Fig. 2, then throw the head back, and project the legs forward as far as possible, and at the same time upward, as in Fig. 14. The tendency of this

FIG. 14.



movement will be, that your hands holding the bar, will form a kind of axis, while your feet will describe part of a circle, answering to the periphery of the wheel; now while the legs are passing round straighten your arms, and you will come down on the other side as in Fig. 15.

Of course this is very difficult to accomplish, and will require much practice, but I consider that you are now becoming somewhat *au fait* on the bar, and gaining confidence in your own powers.

I should recommend learners, however, to lower the bar about a foot, so that they can spring off the ground if necessary. The proper way, however, is to commence

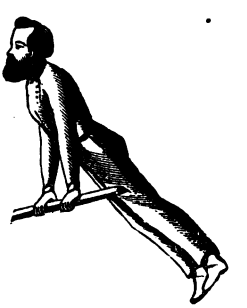
from the original hanging position on the high bar, as in Fig. 1.

Now you are on the bar, as in Fig. 15, the object is to revolve round the bar like a wheel on its axis.

FIG. 15.

This you must try to do by throwing the upper part of the body forward with a good swing, at the same time

FIG. 16.



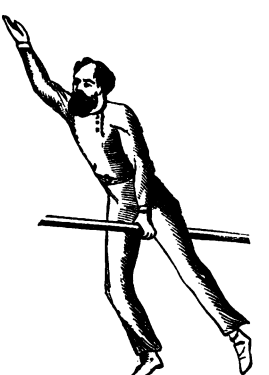
*keeping the* arms rigid, and the body a little away from

the bar, as in Fig. 16, endeavouring to give yourself enough impetus to go right round, passing beneath the bar, and coming up in the original position, as in Fig. 15.

At first you will simply come off the bar into a hanging position underneath, but when you begin to master the feat, you will get a knack of supporting the body with the groin while you are turning round.

This is designated by the euphonious name of the "Slobber Swing," as it is rather a clumsy way of doing it: but the "short swing" proper (or "short circle" as it is often called) is performed without allowing the body to touch the bar at all; and thus, the body being quite straight, and the whole weight thrown on the arms, it requires great practice to accomplish it, and especially when several are done in a swing.

FIG. 17.



When I speak of several being done "in a swing," I use a technical expression, meaning the repetition for any number of times of an exercise without losing the

original impetus. There is another exercise called the "side-swing," which is to revolve round the bar sideways, as shown in Fig. 17.

There are also compound exercises, such as beginning with a "short swing," passing into the "long swing" without stopping, and finishing with a graceful turn-over on to the ground, called the "backaway." This is, I believe, the last new feat in vogue, and is a very striking performance, which I shall speak of more at length hereafter.

We now come to

## THE "HINDU PUNISHMENT," OR "MUSCLE GRIND."

The name of which may be supposed to indicate, as it really does, a rather painful exercise to the muscles of the arms, but I will describe it, as it is a very showy performance, although not very difficult.

But although I give a description of it here, let me not be misunderstood. What I wish to inculcate is, the general use of gymnastic exercises suitable to the powers of those who engage in them.

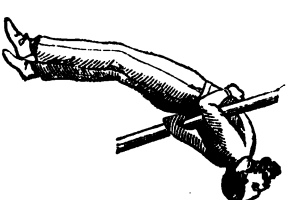
These exercises may be performed on any or all of the apparatus here described, but it is not at all necessary that any one should master the whole of the feats, in order to derive the expected benefit.

Persons of a disposition at all nervous may confine themselves to movements in which there cannot be the slightest risk, any more than in the ordinary avocations of life; others may advance further, and practise in a manner a little more exciting; while those who have the requisite combination of pluck and nerve, with *mechanical dexterity* and a moderately robust frame, may

attempt with perfect success any of the most complicated and difficult feats in gymnastics, such as somersault throwing or the flying trapeze.

The "muscle grind" is performed by getting on to the bar in sitting position as in Fig. 8. Then straighten the body, and put the arms straight down behind you, and allow yourself to slip gradually down until the bar catches the inside of your arms, then clasp your hands across the chest, and commence swinging backward and forward, until you get momentum sufficient to carry you quite round the bar; and with practice you will soon be able to revolve to your own satisfaction. Fig. 18 represents the ordinary

FIG. 18.



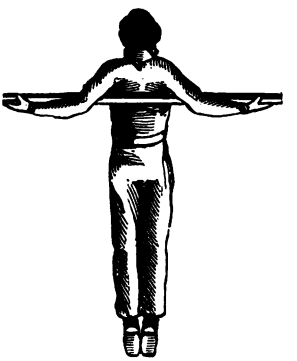
manner of performing this feat, but to do it the reverse way (or backward) requires much more practice. Another way of doing this feat is to straighten the arms along the bar, and revolve as in Fig. 19.

This is a performance which, when well done, goes down wonderfully with an audience, and creates more enthusiasm than much more difficult feats.

I was at an assault of arms on one occasion, and joined two friends in a little gymnastics, and after some of the most complicated and skilful feats

had been accomplished and greatly applauded, although without creating any *furore*, I, having a good notion of what would please, gave them "a muscle grind,"

FIG. 19.



and the speed with which I revolved drew down boisterous applause, although the feat was not nearly so difficult as many which had been previously accomplished.

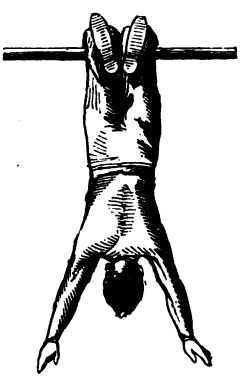
The "hand grind" is similar to the exercise last described, only that instead of the hands being clasped across the chest, they grasp the bar, which is only touched by the back, and not by the arms at all.

I will now proceed with some leg exercises which are very amusing.

## HANGING BY THE LEGS.

Get on to the bar in a sitting position, and then throw yourself off backward, as for a sit-swing; but instead of going round, drop the body, and bend your knees, and thus let them catch on the bar, getting a firm grip with them, at the same time letting go your hands as in

FIG. 20.



A young beginner should practise this on a low bar, so that when he hangs by the legs his hands will touch the ground; and thus when he is getting tired, and cannot raise himself, he may let his legs drop, and come on to his hands on the floor safely. He may then get on to the bar again, hanging by the knees as before, and practise swinging backward and forward, as high as he can. At first the friction will make the legs a little sore, but it will soon harden with practice.

Having obtained good command of swinging in this way, *you may* venture to let go with the legs, as in

They are performed by hanging in horizontal position under the bar as shown, the whole weight being supported by the arms.

Having now gone through most of the "strength movements," I will proceed to one of the most difficult of all the exercises, requiring great nerve as well as strength, and that is,

### THE LONG SWING, OR GREAT CIRCLE.

This performance consists in swinging round the bar at arms' length, as shown in Fig. 35, and is very

FIG. 35.

trying, especially when several revolutions are made "in a swing."

Before you attempt this feat, however, it is imperative that you are very well up in the "short swing," and you must prepare yourself by gradually getting the body further away from the bar.

But when you actually attempt the "long swing," you must make up your mind for it, and without any half-heartedness throw yourself up almost into a hand balance on the bar, but without losing the momentum of the swing; and as you descend, slightly bend the body backward, but just as you get to the bottom, throw the legs suddenly forward and the head back, *and this jerk will give* you a great impetus upwards.

Now you must, while you are going up, draw yourself a little closer, by bending the arms, thereby shortening the distance from the bar, and assisting the first impetus gained; and you should now come up over the bar with the arms still bent and the chest thrown forward.

You will now find that the hands are rather too far over the bar, the arms being bent, and the body nearly perpendicular.

This is what may be called the "dead point" of the swing, and is a very awkward posture to be in; but the secret of getting out of it, and regaining the full force of the swing is, what is called "the shift," which is, to give the hands a sudden turn, and bring the palms on to the top of the bar, which will give you power to straighten the arms again, and start for another revolution.

If you cannot succeed in accomplishing "the shift," you will find that you will make another three-quarter swing, and come with your chest on the bar rather unpleasantly; but perseverance and confidence will eventually enable you to accomplish the "long swing" forward.

You will observe that I am not now treating you as a novice, for no one should ever attempt feats of this kind unless he has become a tolerably good gymnast; but this I should hope you are by this time, as I suppose you to have gone regularly on from one exercise to the next, and from the easy to the difficult, as no one will find it of the slightest utility to commence in the middle of a book of this kind; and I should hope no one who is really in earnest to improve would pay the author such a poor compliment.

The "*long swing*" or "great circle" backward is a

performance of still more difficulty. Get on to the bar as before, and reverse the hands, placing them *under* the bar, and the thumb *over*, and then incline forward until you get into a balance (Fig. 36), then bring the

FIG. 36.

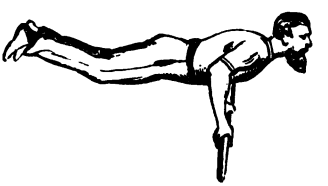


FIG. 37.

body upright over the bar, with arms still bent, as in Fig. 37.

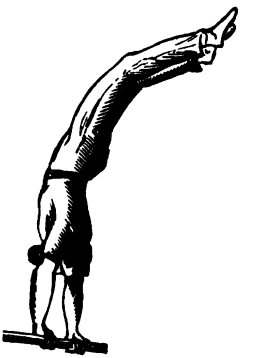
You will now begin to fall over, and at this moment *straighten* the arms, as in Fig. 38, which will give you swing enough to come up into Fig. 36 again, ready for the second revolution.

Never practise this on a bar more than an inch and three quarters in diameter, as the smaller the bar the better hold you will get.

Now, when you can accomplish the backward and forward long swing, you may try a few one way, and then, reversing the motion, finish with a few the other way, without stopping or coming off the bar.

To do this striking and adventurous-looking feat, you must commence with the backward long swing, and *when you have* made three or four revolutions (taking

FIG. 38.



care not to tire yourself), and are in the position as in Fig. 39, you must reverse the hands, and throw your-

FIG. 39.

self as far from the bar as possible; at the same time straightening the body, and you will then be ready for your forward long swing.

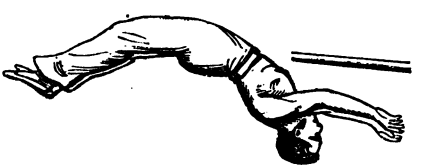
There is another movement which makes a splendid finish to this feat, which is called

## THE BACKAWAY.

The performance of this demands great care in learning, but I consider this and the following as among the easiest advanced exercises on the bar. First put on the "lungers" (described in Chapter V.), with some one on each side to hold the ropes.

Now swing as in commencing for the long swing forward (Fig. 39), and as soon as you are level with and behind the bar, let go with your hands, and you will turn quite round and come on to your feet on the

FIG. 40.



ground. Fig. 40 shows the position you assume when you have just let go the bar, the head thrown back and the chest out.

The first time this graceful evolution was performed was by accident. A young friend of mine was trying a long swing, and the bar being too thick, he could not retain his grasp when the great strain of the swing took place. His hands slipped when in position as in Fig. 40; and the effect was that he turned completely round in the air and came on to his feet safely.

Next day he came to me and related the circumstance, and we concluded that it would be a grand finish to a long swing, and well worth learning. Accordingly it was practised with the "lungers," and we found it much easier than we had expected.

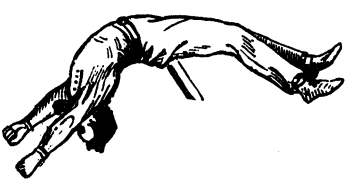
The principal thing while practising it, is to get a good swing, but not so much as required for the long swing, or else you are apt to turn rather too much, or to catch your feet against the bar; but experience must teach you the "happy medium."

The last exercise I shall speak of in connexion with the horizontal bar, is

## THE ROLL OFF.

This is to sit on the bar with the body perfectly straight, and bring the arms above the head, and then let the body fall backwards, and it will be bent as in

FIG. 41,



and you will execute a kind of back somersault on to the feet.

This, of course, must not be attempted without the "lungers," but it is very simple, although requiring great confidence, but you will find that when you have done it once you can always do it.

## CHAPTER III.

### THE PARALLEL BARS.

FIG. 42.

THE construction of these is very simple, as they merely consist of two bars supported side by side at a suitable height from the ground.

*On these* there will be plenty of work for the

muscles; and if you wish to become proficient you must practise assiduously; but any one who can perform well on them will take rank as a good gymnast, as some of the advanced exercises require great strength and skill to do them properly.

But of course, as I said before, you need only go as far as you like, and keep to exercises well within your powers.

There are many simple movements on these bars, but they are not so attractive or so much liked as those of the same kind on the horizontal bar; and some of them are also very similar to movements on the vaulting horse; and therefore I shall only endeavour to show you some of those which are the best to practise, and which will also afford variety.

But, at the same time, the parallel bars should not be neglected, as many of the movements upon them call into play muscles which it is highly important to strengthen, and which are not so well exercised on the horizontal bar and other apparatus; and thus the benefit derived from the exercises must compensate for their otherwise comparatively tame and unattractive character.

The dimensions for the parallel bars (which it is highly important should be correct, as, if they are too wide, they are apt to strain the body instead of merely exercising the part which it is your object to strengthen) are as follows:—

The width of the bars apart for ordinary persons should be eighteen inches; for those with broad shoulders, nineteen inches. The length should be not less than seven feet, and the bars should be *round*, and of a diameter of two inches and an eighth.

Oval bars are sometimes used, but I prefer the round ones, as they feel more natural, most of the other apparatus being of similar form.

Now the height from the ground should be about four feet eight inches, as this would be suitable for all near the average height; but persons much taller or shorter will require bars rather higher or lower to suit them. They are sometimes made low, but are then comparatively useless, as only a few vaulting exercises can be performed upon them.

The four uprights should be fitted into a stout wooden frame, morticed together and *held by screws*, as in Fig. 42, so as to be portable; and should they be required for a playground, or any place where it may be necessary to have them fixed, they may be readily secured by wooden stakes or wedges driven into the ground. They may also be supported upon uprights firmly sunk into the ground, if it is more convenient to fit them up in this manner, but then they are liable to decay from the damp, and thus become unsafe.

Supposing the parallel bars now to be properly fixed, you may commence, as in the horizontal bar, with the simple movements which any one would naturally perform upon them; such as standing between them, and with a spring placing a hand upon each, and thus supporting the weight of the body, as in Fig. 42.

When you have become somewhat used to them in this way, commence swinging forwards and backwards, with the legs straight down, trying to go higher each time.

Of course if you have practised on the horizontal bar, the preliminary exercises will be mastered at once, but as it is possible that some may commence on the parallels, I give this short description of these simple movements.

*The first exercise* after you are on the bars should be

## THE WALK.

This is very simple, being performed by jumping up and placing one hand on each bar, with the body hanging suspended between them as before.

Now walk along the bar by taking steps with the arms, making them as evenly and regularly as you can, keeping the head well up, and the body perfectly straight.

Walk in this way from one end to the other, and when you can do this easily, walk back in the same way, without turning round. Then let the body sink down as in Fig. 43, and hop from one end to the

FIG. 43.

other backward and forward. This you will find capital practice for the muscles of the arms, although rather tiring at first.

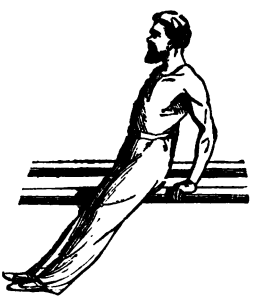
When this hopping movement is done with a good swing, *so as to go* forward or backward some consider-

able distance, it has a very good effect, and is called "The Grasshopper."

## VAULTING MOVEMENTS

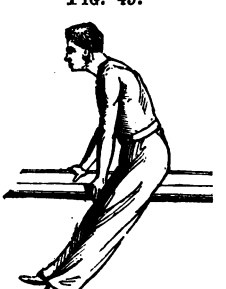
are performed by getting up between the bars as for the walk, placing yourself near the centre of the bars.

FIG. 44.



Now swing backwards and forwards until you are able to throw both legs over one side of the bars in front of you, as in Fig. 44.

FIG. 45.

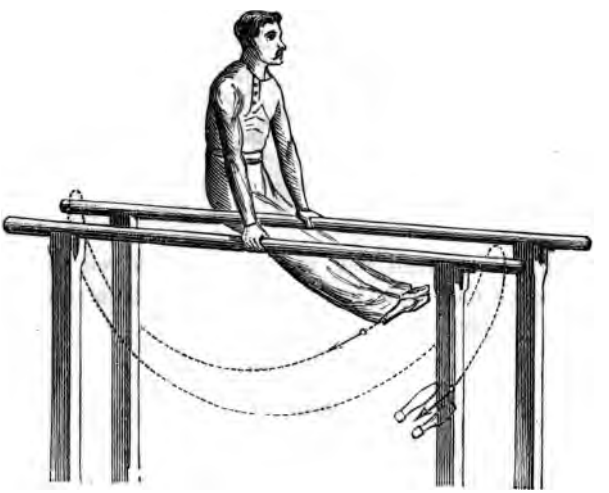


*Now with* another swing bring them back again,

and throw them over behind you on the same side as before. (Fig. 45.)

There are several of these movements which may be practised with great advantage to the muscles. Another is shown in

Fig. 46.



This is one of many which may be gone through while in this position on the bars, the dotted line showing the serpentine course of the movement.

All these exercises should be performed with the body as straight as possible, and when done neatly, with the legs close together, have a very pretty effect, and are very good practice.

There are several similar movements, such as those represented in Figs. 47 and 48, which are done by first swinging backwards and forwards, and then throwing the legs over the outside of the bars in front, one

on each side; then bending back a little, and bringing the legs over back again between the bars, and then, without stopping, throwing them over again behind

FIG. 47.

you, one on each side as before. This you should practise until you can repeat it several times without stopping.

FIG. 48.

The next exercises are good practice. Stand between the bars, and place the hands on the under side of them, even with the shoulders, then gradually raise the legs until they turn over and bring the body into an *inverted* position, as in Fig. 49; then continue the

movement right over until you are hanging as in the position shown in Fig. 50.

FIG. 49.

You should practise this until you can do it severa times without touching the ground with the feet, and

FIG. 50,

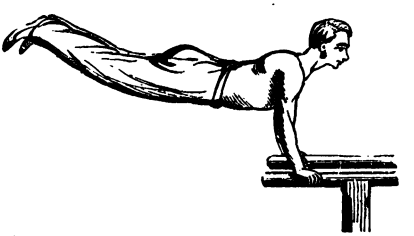
you will find it very good practice for the front and back horizontal movements previously shown on the horizontal bar.

## THE PUMPING MOVEMENT

is one of the finest exercises for developing the muscles of the chest.

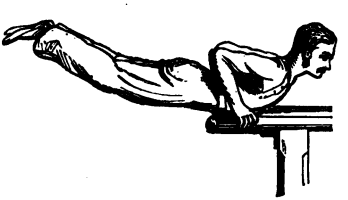
You must first practise the swing until you can bring yourself up horizontally, as shown in

FIG. 51,



then, by bending the arms, drop the body into Fig. 52, and then swing round, your feet describing a semi-

FIG. 52.



circle, and come up again into Fig. 53, finishing the movement by swinging backwards again in the same manner into Fig. 51, as on commencing the movement.

## THE HAND-BALANCE.

When you have become proficient in these movements you may attempt a higher flight, and increase

FIG. 53.

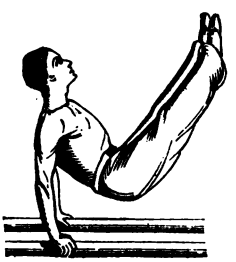
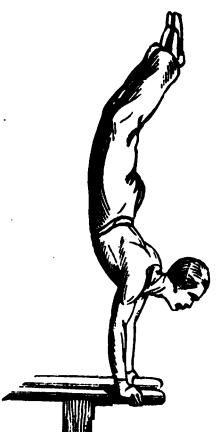


FIG. 54.



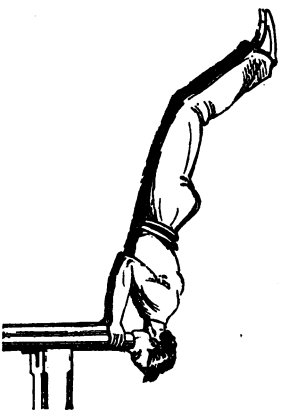
the momentum of the swing until it brings you up into a hand-balance.

Fig. 54 represents this exercise on the extreme end of the bars, which is a very good place for you to begin to practise it, as, if you should overbalance, you can lower the body by bending the arms as in Fig. 55, and spring over on to your feet.

When first you attempt the hand-balance you must have two assistants standing a little behind you (one on each side) with their hands ready to catch you by the back or shoulders should you fail in balancing yourself; and the same precautions must be taken when trying the "hand-spring" off the end of the parallels,

which movement it is as well to practise first, so that

FIG. 55.



when you can accomplish it you will have no fear when you are trying the hand-balance.

### THE SLOW UPWARD MOVEMENT

is an exercise which requires great muscular power to perform it properly.

Fig. 56 shows the position at starting. The hands are placed well over the ends of the bars (in fact, resting on the wrists, as you have then the greater purchase), then slowly raise the body by main strength until you are as in Fig. 57, which is the turning-point of the movement.

If you can manage to get above this you can get right up, with straight arms and with little further exertion.

*Some* are not content even with this, but continue

rising until they get quite up into a hand-balance, which is a very graceful movement, and a much more

FIG. 56.

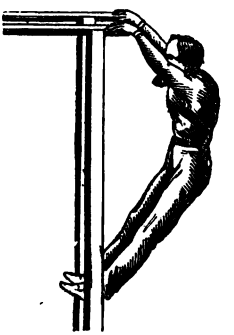
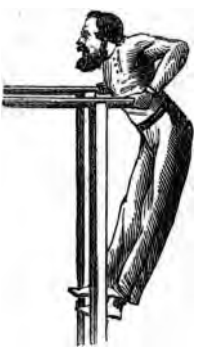


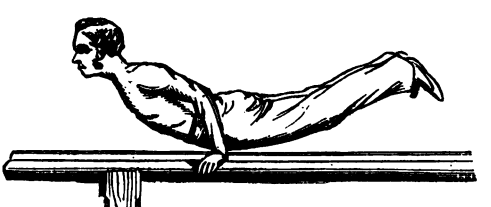
FIG. 57.



showy finish than merely coming down in the same way as you go up.

But perhaps the most difficult exercise upon the parallel bars is to bring the head and shoulders forward so as to counterbalance the legs, and bring the body parallel with the bars into the position called "La Planche," as shown in

FIG. 58.



## CHAPTER IV.

### THE VAULTING HORSE.

FIG. 59.

THIS is, perhaps, of all gymnastic apparatus, that which has been the most neglected in this country. I never met with one until I visited a gymnasium on the continent; and even then what I saw, although better than the old style in use here (specimens of which may still be seen in our military gymnasia, and which *may be described* as simply a box or log of wood

mounted on four solid legs), were still much inferior to the modern style.

It is described by one of our writers on gymnastics as being simply the trunk of a tree mounted on four legs. Now, this is most barbarous and calls loudly upon us to "reform it altogether," as the use of it is much more likely to cause injury than benefit to any one attempting feats of agility upon it.

The sketch on the opposite page will give you an idea of a proper vaulting horse, and I will supply a few details of description.

There are various lengths for these horses, but the one you will find to be the most generally useful is six feet long and about sixteen inches across the back.

It is covered with cowhide all over and evenly padded, and is generally made with one end a little raised, with a slight bend, corresponding to the neck of the animal which is its prototype; and this gives some form to it and is useful as a mark where to place the hands.

There are two pommels placed about the centre, eighteen inches apart, and moveable, so that the horse may be used without them if required; and in this case, flush pommels, level with the back of the horse, are inserted into the grooves.

The legs must be made to slide up and down after the manner of a telescope, so that the horse may be used at heights varying from about three feet six inches to six feet.

It is also necessary to have a solid deal board, about three feet square, rising in thickness from a feather edge to three inches, for taking what is technically termed a "beat" off, which is very useful in exercises which require to be performed lengthways on the horse.

Of course it is not used as a springboard, but to give a firm foundation for the foot in jumping, and particularly to mark the place of starting, when increasing or decreasing the distance from the horse.

There are no simple preliminary exercises on the horse but what may be just as well performed on the parallels; and indeed, such is the similarity in some of them, that I have invariably noticed that any gymnast who is good on the one is not likely to be a novice on the other.

For this reason I shall endeavour to make as much variety as possible, and shall therefore not describe exercises which may be as well gone through upon the parallels, but only give you those which have a distinctive character.

Commence by jumping on to the horse with the hands one on each of the pommels, and supporting the whole weight of the body; the legs hanging straight down (as in Fig. 59).

FIG. 60.

Now bring your legs over the body of the horse in *between the* pommels, as in Fig. 60; then bring them

back again without touching the horse with the foot, and pass the other leg through in the same manner.

Now you must try and change the legs simultaneously; that is, while the one is being brought back, the other is to be passed through forward; the body, of course, still supported by the arms.

## THE LEG-SPRING

Is the next exercise I shall show you, and is performed in the following manner.

Get on to the horse as in Fig. 59, and then bring both legs up on to the back in a kneeling position (as in Fig. 61), then, while the body is thus gathered, give a

Fig. 61.

good spring up, throwing up the arms as in Fig. 62, and you will come over to the other side on to your feet, on the ground.

If you are nervous in attempting this at first, get the assistance of some one to hold your hand, and you will accomplish it without much difficulty.

FIG. 62.

The next exercise must be practised at first with the horse as low as possible, and the jumping-board placed about a foot from the horse.

### JUMPING THROUGH THE HANDS.

Take a short run, and jump on to the board with both feet down at once, flat-footed, and spring off the toes (as you will find you must do in all jumping movements, as, if you alight on the toes after taking the run the springing power will be gone).

As I said, after a short run, jump on to the board, and then, continuing the movement (with your hands one

FIG. 63.

on each pommel), make another jump up, and pass the *legs through the* hands, as in Fig. 63, shooting them out

in front of you over the horse, so as to come neatly down on the other side. Of course you must measure your distance, so that you may rise high enough while passing over for the back to clear the top of the horse.

Another form of this exercise is to jump over the horse with the legs *outside* the hands, and is performed in a similar manner to the last, but is rather more difficult, as you will need a much greater spring to raise yourself sufficiently high to pass clear over; and you must also take care to let go with the hands at the proper moment, when in the position shown in

FIG. 64.

If you retain your hold of the pommels too long, you will lose command of yourself, and they will have a tendency to pull you back, and cause you to pitch head first on to the ground; but when you commence to practise this movement it is necessary to have some one standing in front, to catch you in case your feet do not quite clear the top of the horse, more especially if it should be at all too high for you.

### VAULTING

may also be practised over the horse in the ordinary manner as over the horizontal bar, which I have fully described; but as the horse is of course comparatively

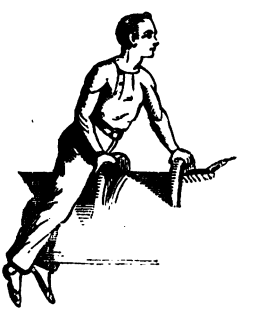
wide across the back, it will require more practice, but will afford great variety.

We now come to an exercise which is peculiar to the vaulting horse, but which will be found to be very good practice for those who are ambitious to excel in equitation, and that is

## SADDLE VAULTING.

Now get on to the horse, as in Fig. 65, sitting across

FIG. 65.



as in a saddle, but *behind* the pommels; then, bearing the whole weight upon the arms, throw your legs right up, and giving yourself a kind of twist, describe a semicircle with them, and bring yourself round with the face the other way; your hands being one upon each pommel, your course will naturally be towards the one which holds the aftermost.

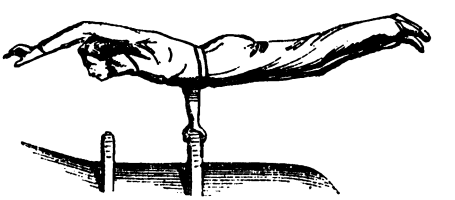
But you must of course take care to practise this exercise both from right to left, and *vice versâ*.

When you are well up in this, you may practise this movement and back again in a swing, without *stopping*.

## THE SWIMMING (OR FISH) MOVEMENT.

Get on to the horse as in the first exercise, but with one hand on the aftermost pommel, and then gradually draw the body over on to the elbow as far as possible, bringing the elbow as near to the stomach as you can; now raise the other hand, bringing it straight up over the head, bending forward until you assume a horizontal position, as in

FIG. 66.



You may also vary the exercises by slowly turning round upon the wrist, your feet describing a semicircle backward, keeping the body still in the horizontal position.

This is a very pretty movement when well done, and some gymnasts will follow it by taking hold of the other pommel when the body is at a right angle with the horse, and then rising gradually up into a hand balance on the horse, as shown in Fig. 67.

This is very similar to the same exercise on the parallel bars, and while you are in this position, you have a fine opportunity to finish with the "half-hand-spring" (if you are well up in that movement), which will make a good wind-up to these exercises.

It also looks very well, after you have been vaulting

and jumping over the horse in different exercises, to give a hand-spring right over it.

If you can accomplish this feat on the end of the

FIG. 67.

parallel bars, a little further practice will enable you to do it also over the horse.

Of course it must be low when you first commence to practise these feats, and you will also require two assistants on the other side, to prevent your falling in any other way than the right.

### THE ROLL OVER

is another exercise which will bring into play the muscles of the back.

To perform this feat, stand with your back to the horse, about the centre, with your hands behind you, *holding the pommels*. Then bend the upper part of

your body well backwards, and lift up your feet, as in Fig. 68. You will soon find that you can raise them off

FIG. 68.

the ground, and bring them over your head; and in time you will be able to roll quite over on to your feet on the other side, of course letting go the pommels as you come down.

This is a very showy exercise, and the quicker it is done the easier will be the accomplishment of it.

## THE LONG FLY

is a very fine exercise for the whole of the body, and more especially the lower extremities.

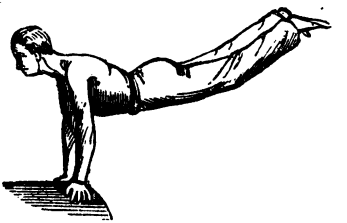
You commence practice for this movement, by placing the jumping-board about three feet from the largest end of the horse, then with a run pitch with your hands on to the end, as in Fig. 69.

Now move the board a little further off, and repeat the movement; and thus continue the exercise, increasing the distance each time, until you can pitch on to the end from about five or six feet.

Now vary this movement by jumping from different distances, and pitching on the hands first, and then

bringing up the feet on to the back of the horse, as in Fig. 70.

FIG. 69.



And when you are in this position, pitch with the hands on to the extreme end of the horse, and go over as at "leap-frog."

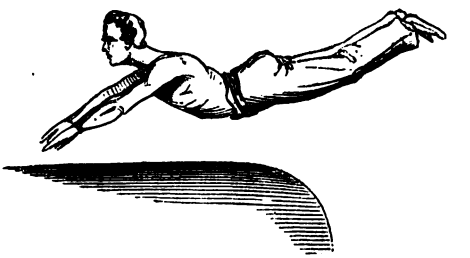
FIG. 70.

Having now sufficiently practised these preliminaries, place the board about a foot from the end of the horse (having first had the high pommels taken out, and the flush ones substituted).

Now take a run and jump, pitching with your hands on the first pommel, landing yourself astride, as near the middle of the horse as possible; repeat this exercise, *gradually* increasing the jump, until at last you

clear the whole length, as in Fig. 71, coming down safely on the ground in front of the horse.

Fig. 71.



When you can get near the neck and are likely to come right over in a few more trials, have some one standing in front to catch you, in case you do not quite clear the end, and come instead into a sitting position on the neck of the horse, as in this case the sudden stop is likely to throw you over head forwards in a rather ignominious manner; but if you practise assiduously, when you feel that you can do it, and make up your mind for it, you are almost certain to clear it.

I must also caution you against thinking you are getting on when you do as some I have seen, who pitch about half way, and paddle along on their hands until they get right over.

You must pitch right clean over the whole length with one movement to do it properly and in a creditable manner.

It is much better if you can practise this exercise over horses of various lengths, beginning with the shortest; but I fear you will find it difficult to meet with a gymnasium fitted with such variety of apparatus.

## CHAPTER V.

### SOMERSAULT-THROWING.

FIG. 72.

IN this chapter I shall endeavour to describe exercises which partake of the nature of what is popularly, but I think incorrectly, called "tumbling;" as I consider that the grotesque gambols of clown and pantaloon and other merry-andrews would rather come under that denomination, than the feats of strength and agility which I am about to describe.

One great reason for introducing them here is, that the ability to perform them will immensely assist in acquiring confidence in all kind of gymnastics (and especially the flying trapeze, which I shall presently treat of), and also because exercises of this kind have *never been before* described in any work of the kind.

But, as I have before endeavoured to impress upon my readers, my object in introducing them here is not so much to inculcate their general practice, as all the beneficial effects resulting from gymnastic exercises can be obtained by the use of some of the more simple movements; but I find that it is often the case, that gymnasts, seeing others perform these feats, are anxious to learn everything they can as to the means of becoming themselves expert in them.

And to those who have this ambition, and who find by experience that they possess the necessary qualifications of nerve and agility, with a moderate proportion of strength, these hints are offered.

But perhaps you would like to learn these feats, and yet look upon them as nearly impossible to you, and you may say, "I am sure I shall never be able to throw a back somersault, or anything of the kind; I should come down on my head at the very first trial." Never fear; you would not be at all likely to get so far; you would most likely only jump up into the air, with scarcely any turn, and come down on your back or into a sitting posture, without injury.

But let me just give you an idea how these things are learnt, and the best way will be for me to tell you my own experience.

After I had practised on all the apparatus and was well up in the exercises, I thought I should like to do something more in the way of a hand-spring or somersault, which I had often seen done; and after some time, being in company with a clever acrobat in a gymnasium in Paris, I asked him to give me a few lessons He consented, and shortly afterwards they came off, and to my very great satisfaction I found that, after a few trials, I was getting the knack and making very good

progress, which was mainly due to the method of instruction and the precautions taken against risk.

The principal of these was the use of a very simple contrivance, called the "lungers," which I will describe. It is a strong leather belt buckled round the waist, and having an eye at each side, into each of which is spliced a rope a few feet long, capable of supporting the weight of the gymnast.

This will be better understood by a reference to Fig. 72, at the head of this Chapter, where it is shown round the waist of the central figure, an assistant holding the rope on each side, so that when he makes a spring or attempts a somersault, and fails, a fall is prevented by the support afforded by the ropes. This is a most useful adjunct in gymnastics of an advanced character.

I will not tire you by any further introduction, but proceed to the first exercise, just telling you that you must not expect anything very easy in this branch of gymnastics; but I should think you might begin by hopping through the leg, as shown in Figs. 73 and 74.

FIG. 73.

FIG. 74.

*This exercise,* as its name implies, is performed by

holding one foot tightly in the hand and hopping over it with the other leg. This is a feat which requires pluck more than anything else.

In commencing this you may use the "lungers," or else take hold of something near to steady you and take off part of the weight.

The first few times you will let go the hand, and hop over nothing; but it is more simple than it looks, for when I first was about to try it, and spoke of it as difficult, I was asked if I could hop a distance of five feet, and answering in the affirmative, was then told that I could do it, which proved to be the case.

A good variety of this is to hold a stick by the hands in front of you, and jump over it, backward and forward. This is very useful, as it teaches you to gather your body up close in jumping, which is the great art in somersault-throwing.

We may now proceed to a feat which will tax your powers to perform it well, but is very good practice. This is

THE UPSTART,

which means, to lie on the ground, and come upright on to the feet in one movement. Of course you have seen this done, as the clown in a pantomime would scorn to get up in any other way after being knocked down.

When first trying this you must have a gymnastic mattress, about seven by five feet. Lie on this at full length on your back, with your arms stretched out above your head.

Now raise yourself up into Fig. 75, then throw yourself on to your shoulders, and bring the legs over the head and the hands on the ground, as in Fig. 76.

Now, in the same quick movement, with a good

spring from the hands and shoulders, throw yourself upwards, at the same time bringing the legs smartly

FIG. 75.

down and underneath the body, describing a semi-circle, and lifting the body all you can, and you will be

FIG. 76.

standing on your feet, or will, with practice. This is called the "clown's" upstart.

The chief thing to strive for is to bring the feet under and on to the ground as *soon* as possible. At first you will lift yourself about a foot high, without throwing the legs sufficiently under to support the weight of the body; and the consequence will be that you will fall flat on your back again.

FIG. 77.

Another way of doing it is by raising the hands and not touching the ground with them at all (as in Fig. 77), giving all the spring from the shoulders; but this is more difficult, and is called the "classical" upstart.

These are not very easy exercises to describe, being rather more complicated than those we have hitherto practised. The next you may try will be

## THE HAND-SPRING.

This feat is to stand and throw yourself up with a spring and turn over forwards, pitching on your hands, continuing the movement until you complete the circle, and come up standing again.

This must be practised on a mattress, as you are most likely to turn over and come flat on your back on first attempting it; but if you have previously mastered the upstart you will soon accomplish the hand-spring.

Fig. 78 gives the position at starting, with one leg

FIG. 78.

a little in advance, body slightly bent, and arms straight up.

Now, with a good spring, throw yourself on to your hands, throwing the aftermost leg quickly over, in-

stantly followed by the other; now, when you are on your hands, which is only momentary (but all depends on what you do at this time) you must have the arms stiff, the chest out, and head thrown back. Now, just as you have turned over and are falling backwards, suddenly put all the weight on the fingers (this being the "hand-spring," as you spring *off* the hands,) which, added to the momentum you already have, will throw you quite over on to your feet.

All this is done while you can say "one," and the moment the hands have left the ground, you must throw them forward, bringing the head and body forward also at the same time.

At first you will come up with your legs very much bent; but you must practise, and endeavour to come up, as in Fig. 79, in a position ready for another hand-spring or forward somersault, if you wish.

FIG. 79.

THE FORWARD SOMERSAULT,

or "forward," as it is generally called for shortness, *is perhaps the easiest* to be learnt of all somersaults,

and yet you will find it one of the most difficult to execute in a finished style.

It is performed by jumping up and turning heels over head, describing a circle with your legs before again touching the ground. And as at first you will only make a plunge head-foremost, as though diving into the water, and pitch right over on to your back, it is necessary to have something soft to break your fall (such as a mattress or bed of tan bark), and also put on the "lungers," the assistants who hold the ropes running with you.

Take a short run, getting a "beat" in position as in Fig. 80, and jump up, throwing the arms down and

FIG. 80.

the head and shoulders forward with a jerk, and the legs backward at the same moment. Now, the difficulty, of course, is to turn round sufficiently to come on to your feet again, and this is greatly assisted by what is called "the catch;" which means, when you have jumped high enough, you are to catch the hands

smartly on the upper part of the thigh underneath (as in Fig. 81), and the effect is that the arms, being thus

FIG. 81.

suddenly stopped when in the act of volition, the momentum is imparted to the lower part of the body, helping in a great degree to bring you over.

When you have confidence to practise this without assistance, you will find it necessary to take a run of about twenty or thirty feet.

Now for another good exercise of the same kind, which goes by the inscrutable cognomen of

### THE FLIP-FLAP

(perhaps from somewhat resembling the flap of a fish's tail), and it is neither more nor less than a hand-spring thrown *backward*, instead of forward; but you will find that all the *backward* exercises require considerably more confidence than the forward, and much longer practice: and for this reason; you are generally in the habit of moving *forward*, and very seldom *backward*.

Now you will notice that a slip forward is seldom dangerous, as we can guard against it to a great degree, and it is sometimes hardly noticed; but slip *backward*, and it will give you a nervous start, even if you recover *yourself* and escape going down.

It is the same with all backward exercises, being a departure from the usual way, and therefore you are naturally nervous when first trying them; but you will soon find, when you get used to jumping backward, that they are easier than the "hand-spring," or "forward," although great care is necessary when learning them.

I may say, once for all, that the "lungers" should be used in commencing all these exercises.

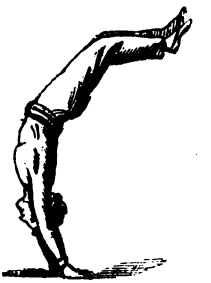
Stand with the legs a little apart, with arms straight, and the body bent slightly forward, as in

FIG. 82.

Now give a good spring off your legs, jerking the arms and head back, and bending the upper part of the body backwards, throwing the legs upwards over your head, and pitching over on your hands, as in Fig. 83, and with a spring from the hands over on to the feet again.

This is, in fact, throwing a back somersault, only you touch the ground with the hands while going over; and it is considered by some a more difficult performance than the "back" itself, if not so showy—although

FIG. 83.



a "row" of flip-flaps, or several done in a swing, is a very striking performance, and it is actually easier, as the impetus is preserved from one to the other.

### THE BACKWARD SOMERSAULT

is, as I have just said, not really harder to accomplish than the "flip-flap;" although it would most likely be considered by spectators as a much more difficult feat.

FIG. 84.

Stand in position with arms up, as in Fig. 84; then

bring the arms down with as quick a swing as you can, into Fig. 85, in order to get the "beat," and then

FIG. 85.

FIG. 86.

without the slightest stop, throw them up again as swiftly as possible as high as they will go, at the same instant with a good jump, throwing your legs right over your head, gathering yourself up and catching your thigh (as in Fig. 86), and you will turn right over into your first position again before your head has time to come on to the ground.

Of course these are difficult exercises, and must only be attempted when you are in good "form;" but when mastered will be found very useful, and a means of safety in many cases.

Some very pretty compound movements may be performed, such as "a round all, flip, and back;" the "round all" being a *side* "hand-spring," in which you turn quite round sideways on the hands and feet, something in the manner of a wheel.

## CHAPTER VI.

### THE FLYING TRAPEZE.

Of all performances on gymnastic apparatus, the most fascinating is, perhaps, that elaborate form of swinging called the "flying trapeze," which has lately been brought so prominently forward, and in which we may recognise the old "swinging bar" of our youthful days under a more ambitious designation.

*We all* know the pleasure afforded by the common *children's swing*, and the exhilarating effects of the

quick motion through the air, even when sitting comfortably in a suspended chair; how intense, then, must be the glorious feeling of rushing through mid-air, solely dependent on the arms, and the satisfaction of successively achieving the well-judged change of bars, the graceful turn between them, or the daring leap from one to the other.

No one who has never experienced this can realize its peculiar charm, and no one who has felt it is likely ever to forget it, particularly as this is an accomplishment which is long retained, so much depending on skill, though of course nerve and strength are necessary.

You may be without the sight even of a trapeze for years, and have almost forgotten that such a thing is in existence, and yet, on coming across one again, all the old feeling of delight will return, and you will (most likely) seize hold of it as eagerly as ever, of course allowing for the increased gravity and consequent loss of impulsiveness attendant upon riper years, and the dignity, perhaps, of being the head of a family.

But these evidences of the march of time will doubtless be instantly brought to your recollection by the increased weight of your *corpus*, and the diminished holding power in the arms.

I do not praise this exercise from the possession of any peculiar excellence in it, although I am happy to say I can accomplish all I tell you in this book. And here we may see a great contrast with other gymnastic performances; for although I can point to many amateurs who could give as good a performance on the horizontal bar or parallels as any professional whatever, yet this is by no means the case with the trapeze—excellence on which is very rare among amateurs; which is

no doubt from the want of apparatus hitherto felt; and I am not aware of any one (professional or otherwise) who can approach the great *maestro*, Leotard, in performing upon it.

Of course, many who have followed him can give a very good performance; and such is the ignorance of the British public on this subject, and the want of appreciation of really difficult gymnastic feats, that the same indiscriminating and boisterous applause is often bestowed on far inferior *artistes*.

But really some of the movements of Leotard upon the trapeze (and particularly when performed under the transept of the Crystal Palace—the finest area for it I ever saw) are really the perfection of what some one somewhere calls "the poetry of motion;" and rather resemble the gambols of children, whose every movement (at least so Sir Joshua Reynolds said) is graceful, than the performance of feats requiring a rare combination of personal qualities and an immense amount of practice.

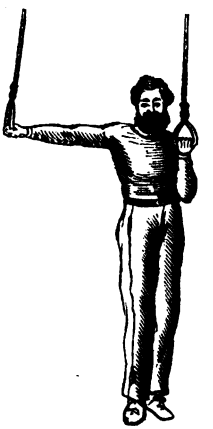
But there is no doubt that many who have seen these beautiful feats on the trapeze would like to be able to perform them; and, if they have the necessary personal qualifications, I see no reason why they should not, and therefore include these remarks and instructions on the subject.

But before commencing the flying trapeze, you may take a turn with the hand-rings, in order to accustom yourself to the ropes, and also get used to hanging by your arms in various positions. These, although called "rings," are of various shapes and sizes, but I prefer the *stirrup* form, fixed to ropes suspended from a height of about fifteen to eighteen feet, and hanging at a *suitable height* to allow the feet to clear the ground. *The trapeze bars* are about twenty-six inches in length,

and an inch and a quarter in diameter, with a steel core in the centre, which gives the proper weight as well as strength, and the ropes should be neatly spliced into brass eyes.

You may commence by drawing yourself up, as in Fig. 87, holding one ring at arm's length, and the other close to the body.

FIG. 87.



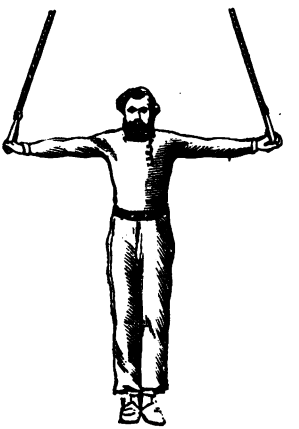
Draw in the outstretched arm and straighten the other, and repeat this as often as you like, as it is very good preliminary exercise for the trapeze.

You can also practise back and front "horizontals," (the same as described in the chapter on the horizontal bar); draw yourself quite up, with your hands in the rings, and your arms straight and close to your sides.

Now, from this position gradually spread the arms *wide apart, sus*pending the body between them, as

in Fig. 88, and then let the body gradually sink down until you hang straight down by the arms again.

FIG. 88.



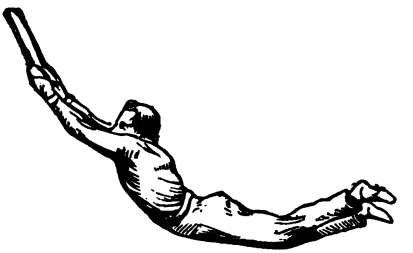
There are many other strength movements on the hand-rings, but you will soon find them out for yourself, and therefore I will pass on to the swinging exercises on them, which are preparatory to the trapeze bar.

Commence swinging simply backward and forward, increasing your momentum by drawing yourself up by contracting the arms as you ascend, and when at the highest, lowering your body with a drop, and by this means you will swing higher each time, until you are able to bring your arms and legs straight and nearly into a horizontal position, as in Fig. 89.

Also swing in different positions in order to get command of yourself while swinging. Practise by drawing *the legs over the* head when at the end of the swing,

as in Fig. 90, passing back in this position to the other end, and then bringing the legs smartly over, and

FIG. 89.



shooting them straight out (in order to preserve the

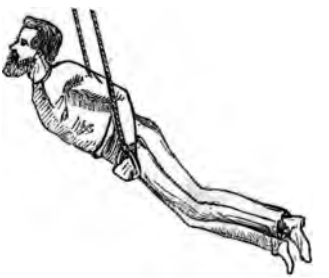
FIG. 90.

momentum), and coming back all straight again to the starting point.

Repeat this several times, and you will find it very good work for the muscles.

Also swing with the hands close to the groin, and the arms nearly straight by the side, and supporting the body, as in Fig. 91, keeping yourself from pitching your head and shoulders too much forward at the end of the swing by bending the arms and projecting the

FIG. 91.

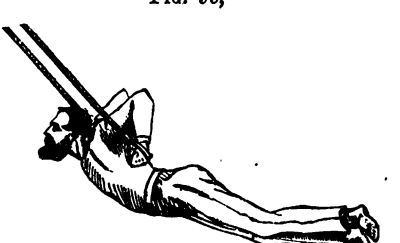


legs as in Fig. 92, which represents the bent position which you assume when beginning to descend.

FIG. 92.

Another variety of this swing is shown in

FIG. 93,



where the body is kept nearly horizontal all through; and this movement is very good practice (when you come to the trapeze) for flying from one bar to the other when a long distance apart.

You must well practise these swinging exercises with the stirrup until you are sufficiently advanced to venture on to the trapeze bar.

Now for the first trial with the bar. Stand on the starting platform (which is a small stage of light construction, standing at a convenient distance from the trapeze, and of a height suitable to start from), holding the bar in *one* hand, as in Fig. 94, as you can get into

FIG. 94.

a freer swing than when holding by both; and you must also be very careful to hold the bar so that your weight is thrown exactly in the centre.

Now jump up off the platform (at the same instant taking hold with the other hand) throwing yourself off with a *good* impetus, in order to get swing enough

to bring you well back on to the platform. Practise this until you can do it easily, and without much exertion to yourself.

Next drop off the platform with a gentle swing, and let go the bar at the end of the swing and come on to your feet on the ground.

Repeat this, increasing the swing gradually, and hanging upon the bar a little longer and further each time, until you are able to let go when at a good height, and come on to your feet with the body nearly perpendicular, and with a good command of yourself. This is done by jerking the upper part of the body forward when in the act of letting go, to counterbalance the impetus of the legs.

You must continue this practice (which is merely jumping off the platform with the assistance of the bar in your hands), and when you are well up in this movement, you may try the "first fly" from the first bar to the second, in the following manner:—

While standing on the platform, as in Fig. 94, have the second bar set going with a moderate swing; and when you see it at the dead point at the end furthest from you, jump off as before, and you will meet it midway between the two, and you must content yourself for the first few times with merely *touching* it. Do not attempt at first to catch it, but accustom yourself to the nature of its swing, judging by the eye the length of the arc described, and the duration of the passage of the bar along it.

Practise this for some time, and when you feel confident enough let go and catch the other bar, and at the same instant jerk yourself well forward, as in Fig. 95, and the effect will be, that should you miss the *second bar, you will* simply drop on to your feet.

FIG. 95.

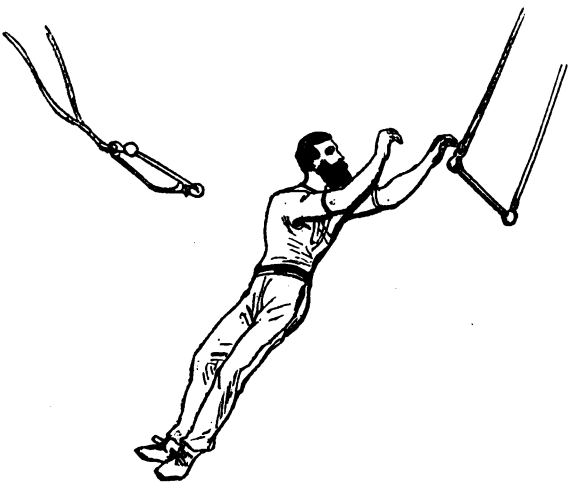
The next feat that I should recommend you to attempt the accomplishment of will be

## THE HALF PIROUETTE.

Start from the platform and catch the second bar (as just described), of course completing the swing on it; and when you come to the end of the backward swing, the first bar will be just behind you in its corresponding movement.

Now, the feat is to describe a half-turn, which you must do by drawing yourself well up, and giving the shoulders and head a good twist round, and seizing the first bar, as in Fig. 96; you will at first only be able to touch it, and send the bar and ropes swinging in all directions; but practice will soon enable you to grasp

FIG. 96.



it in a proper manner with both hands, and to repeat the feat several times without alighting.

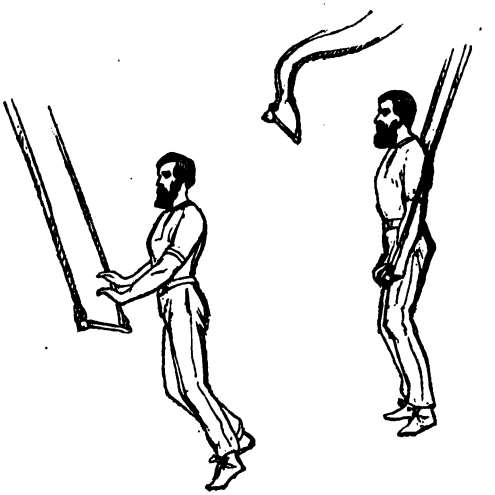
### THE OVER FLY.

Now spring off the platform as before, but bring the body up supported by the arms, as in Fig. 98. Of course always watch the time of the second bar, and practice will soon enable you to hit the right moment. Now throw the first bar right over your head and drop on to the second, as in Fig. 97.

Practise this movement at first with only a little swing, and merely throw the bar away from you and come on the ground on to your feet.

I have seen many beginners who were so over-anxious to catch the second bar that they have only been able *to take hold of it* with one hand; and the consequence *was, that not having* sufficient strength to support

FIG. 97. FIG. 98.



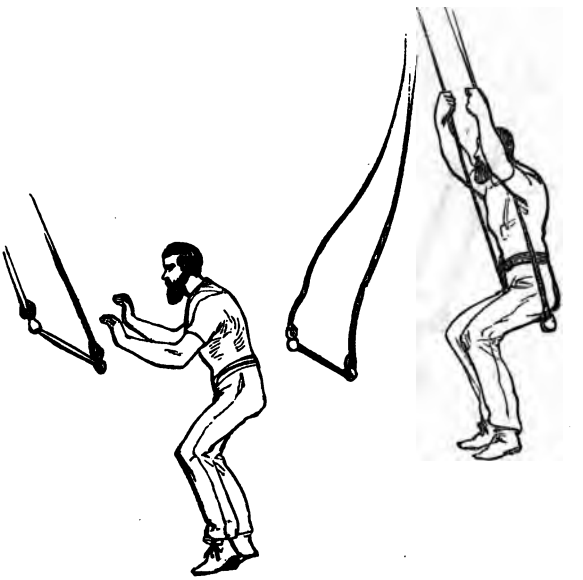
their weight with it, they have come down in an awkward manner on the mattress or whatever was placed underneath to break the fall.

## THE SITTING FLY.

After starting as before, get over the bar into a sitting position, as in Fig. 100. I suppose you to be pretty well up in the movements on the horizontal bar, and therefore well able to manage this without further instruction, and the object is simply to drop off the first bar and catch the second, as in Fig. 99.

You must commence to practise for this by sitting on the bar, and with a little swing springing off on to the ground, gradually increasing the height at which you come off, till at last you swing high enough to come quite on to the second bar.

FIG. 99. FIG. 100.



Now I am going to give you something a little more difficult, as it is not much of a feat merely to pass from one bar to the other, as you have done hitherto.

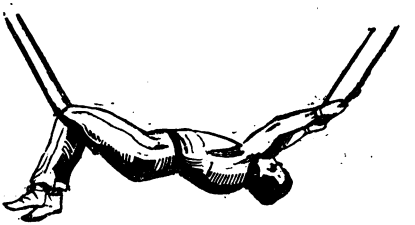
### THE FLYING LEG-SWING.

Start off the platform as before, but at the end of the swing, instead of letting go with your hands, hold on and throw your legs over the second bar, as in Fig. 101; then let go the first bar with the hands, giving it a good swing in doing so (to continue its motion), holding tightly with the bent part of the legs all through *the swing* until you come back again, and you will *then be able to* reach out and take hold of the first

bar again, which has by this time swung back within your reach; now let go with the legs, and you will swing back, and come back on to the platform standing.

This is rather a striking feat, and you must be able

FIG. 101.



to hang well with your legs to do it in a good style but even supposing you should make a slip (you may be a little tired from over-practice), you must open the legs and turn out the toes, and catch by the feet, as in Fig. 102.

This is very simple, and if you have proper boots on the rope will not hurt you.

## THE FLYING JUMP.

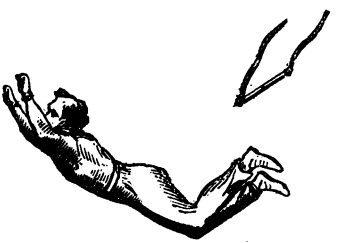
Start from the platform and throw your legs over as before, and let go with the hands; and when at the end of the swing let go also with the legs, as in Fig. 103, throwing the arms and head up, and you will come neatly over on to the ground on your feet.

If you have practised the "half fall-back" on the horizontal bar, you will not find any difficulty in this.

When you first begin, have some one ready to catch

FIG. 102.

FIG. 103.



you in case you should hold on to the bar with the legs too long.

### THE LEG-FLY

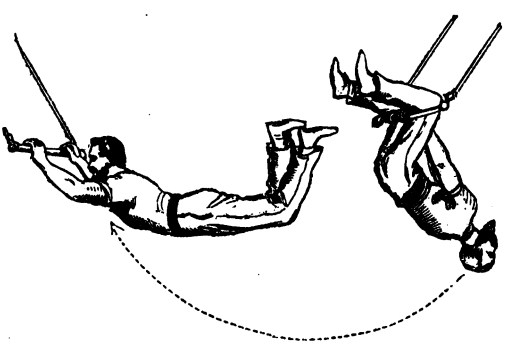
is almost the same as the "Flying Jump," only that instead of coming on the ground you catch the second bar.

Now start from the platform as for the ordinary fly, but instead of letting go the bar in order to catch the second, retain your hold, and gradually draw yourself up until you are high enough to get your legs right up and hook them *over* the bar, outside your arms, one on each side, as in Fig. 105.

If you have mastered this movement on the horizontal bar, you will not find it difficult; but if you are a novice in gymnastics, it will be of no use attempting *the flying trapeze* at all.

By the time you have accomplished this, you will have completed the first forward swing and be returning with your face toward the platform; but when you arrive for the second time at the end of the swing, the *second* bar (which has been swinging in unison with you) will be just behind you, so that, if you let go with your hands and stretch out your arms, turning as in dotted lines in Fig. 105, it will just come

FIG. 104. FIG. 105.



into your hands—that is, if you have swung in correct time with it, and, having been left to itself, it is sure to be right.

Now I am going to set you a task that will frighten you, which is

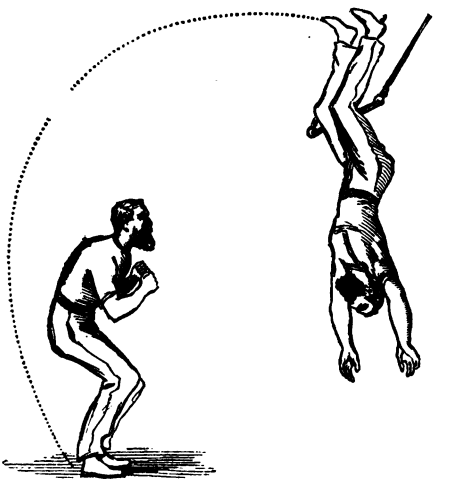
## THE BACK FLYING JUMP.

This is performed off the second bar, and in a direction *away* from the first, so that there shall be no chance of your toes catching upon it.

Now your position on the bar is just the same as in Fig. 105, in the "leg fly," but instead of letting go

now, you wait until you are at the other end of the swing, and then let go suddenly, throwing the head and arms back, and a jerk will ensue, as in Fig. 107,

Fig. 106. Fig. 107.



which will turn you over and throw you completely on to your feet.

Although this appears so difficult, I consider it one of the easiest movements on the flying trapeze, and the higher you swing the better you will accomplish it.

Fig. 107 represents the action of coming off, and Fig. 106 the position you are in when you come down.

You must commence the practice of this feat by trying it while the bar is hanging quietly down, and the "lungers" may be used with advantage, or you may *get some* one to hold your hands as you hang, until *you can do it by* yourself.

*After you* are able to manage this movement on the

hanging bar, begin with a little swing, gradually increasing it as before, until you have confidence to throw yourself off at the full height.

This feat has a splendid effect when done in a finished style, and Leotard always wound up his performance with it; but instead of coming off as you would at first, with a little swing, of course he made a much more showy affair of it, and threw off when the ropes were almost in a horizontal position, and after making a graceful curve in the air, came down in an easy and elegant attitude, which showed the great master.

This movement is rather a pet of mine, perhaps from being rather successful in it, and you will find it much easier than it looks; and when you can make a certainty of coming off when the bar has a little swing, do not be afraid of increasing the movement, as you will find that when you swing higher it is actually easier, and particularly if you are at all good at somersault movements.

I now come to a very pretty movement, with which I shall conclude my remarks on the flying trapeze, and this is

## THE FLYING SOMERSAULT,

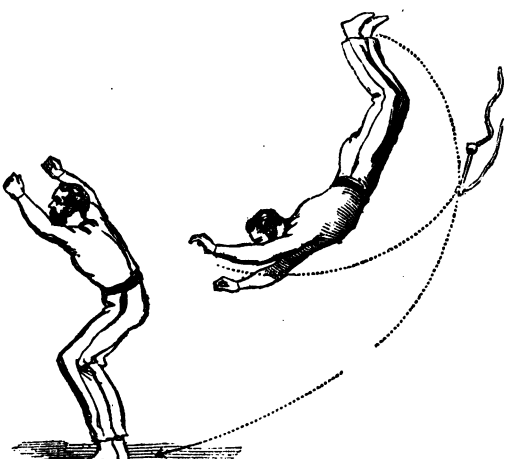
Which is the same as the "backaway" from the horizontal bar (as before described), but is much easier as well as more showy; but the difficulty is to make up your mind, *the first time*, to let go the bar, but, as in the last exercise, the higher you go the easier you will find it—in fact, it cannot be done without a good swing.

It is best to have the second bar hauled on one side when you commence the practice of this feat.

*Start off* the platform as before, and when you are

at the end of the swing, draw your legs up in front of you; now let go, and throw the arms and head back and the chest out all in one movement, which will give you sufficient turn to bring you quite round on to your feet. Fig. 109 shows the position you are in just after letting go, and Fig. 108 the way in which you come

FIG. 108. FIG. 109.



down, and the dotted lines indicate the curves described by the hands and feet in the movement.

In the last two feats, the space between the figures is contracted in the engravings in order to save space.

It is requisite in first practising this to have two assistants, in case you do not get sufficient turn, and are likely to come down awkwardly. They stand one on each side, ready to give you a "pat" or lift of strength *sufficient* to bring you up standing.

*In concluding*, let me say, that it is not very difficult *to perform* these beautiful feats; but of course

you must be well up in advanced gymnastics, and if you can throw a decent somersault, you will find no difficulty whatever in them.

But still you may succeed on the trapeze without being able to throw a somersault, the principal requisite being courage, or a kind of "dash." Do not be nervous, but go at it with determination, and you will succeed; but if you are at all "wool-gathering," or thinking of letting go in the wrong place, or of holding on too long, you are sure to do one or the other, and make a mess of it.

But say to yourself with decision, "I *must* let go at the end of the swing, and throw my head and arms well back," and you are safe to make your somersault.

The power of *concentration* is invaluable, and, in fact, almost indispensable in performing these feats.

And you must take care never to attempt any *new* exercise unless in good form, and in sound health, mind and body.

I have gone through all these movements times innumerable; but mark, I have always taken good care not to attempt anything for the first time, unless quite fresh and in good condition.

But you will find that the first time is generally the difficulty, and after mastering any of these showy exercises once, you can always do them; but as I have just said, if you are tired or "out of sorts," either bodily or mentally, you must not practise this kind of exercises.

Having now gone through all the most important feats, and shown you as much as it is possible for me to do by mere description, the rests depends on your own perseverance, feeling sure that whatever efforts you may make, will be amply rewarded by the *beneficial results* experienced.

## CHAPTER VII.

### CLIMBING LADDERS, ROPES, POLES, ETC. ETC.

I BELIEVE I have now gone through the exercises on all the principal apparatus, but in a large well appointed gymnasium there are many others, which are found very useful, and yet hardly require a lengthened description; but I will just give a few descriptive remarks upon them.

Climbing the rope is a very useful exercise, which should be practised by every one, as it may often be the means of saving life in cases of fire or shipwreck, &c.

I mean climbing by the use of both legs and arms. Fig. 110 shows the way of taking hold of the rope, and Fig. 111 the position when climbing.

At a Gymnastic Festival lately, some of the competitors ascended on a rope in this way to the height of upwards of 100 feet.

Another method is by holding on and raising yourself by using the hands only, but this is more difficult.

Another exercise is by climbing the knotted rope, and also one with short cross bars fixed at frequent intervals.

Climbing the pole, either fixed or hanging, as in Fig. 112, only varies from the same exercise on the rope by its being rather more difficult to grasp from being thicker and also rigid.

*Climbing* ladders, fixed both in vertical and horizontal positions, and at various angles, furnish a good variety

of exercises for the arms, and are very easy to commence

Fig. 110.

Fig. 111.

with. Fig. 113 shows an exercise on the horizontal

Fig. 112.

Fig. 113.

ladder, in which you hold by the outside, and progress by moving the hands forward alternately. Fig. 114

Fig. 114.

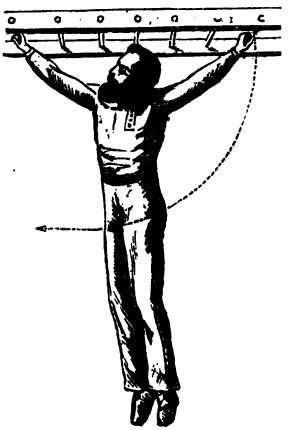
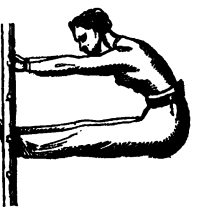


Fig. 115.



represents another movement in which you walk along under the ladder, increasing the length of the step by holding the rounds at some distance apart, the intervening ones being passed. Fig. 115 shows one of the movements upon the perpendicular ladder, in which the object is to keep the arms and legs as straight as possible while the steps are taken. Fig. 116 is the oblique ladder, which may be practised by moving both up and down by the hands.

Jumping may also be practised over a line suspended between two standards, beginning with it low and shifting it a little higher each time; and this is a very lively exercise when several join in it, and take the jumps in succession.

*The "giant's stride"* is a very good exercise for

beginners, and consists of a very strong and firmly fixed upright, about fifteen feet in height, having an iron cap at the top which will revolve easily, and around which ropes are fixed, each having a short

FIG. 116.

FIG. 117.

cross-bar at the bottom; so that several may exercise at once, each one holding a bar and running round, increasing the speed until the body takes the same angle as the rope. Various evolutions may be gone through in this manner, which will be found very amusing.

"Pole-jumping" is an accomplishment which may be useful in crossing rivers, &c., and consists in taking a run with a pole in the hands about twelve feet in length; and when the leap is made, the lower end of the pole is placed on the ground, greatly assisting the jump. Fig. 117 represents the way of holding the pole at the beginning of the run, and Fig. 118 the act of going over; and when at the greatest elevation, a half-turn

is made with the body, and the descent is made with the face to the bar just passed over.

FIG. 118.

The dumb-bells are also most familiar to us, and will be found useful, as furnishing exercises for the arms in a confined area.

You may commence with a weight of two or three pounds each, and gradually increase it, practising various swinging movements; and also with those of a heavier description, merely lifting them off the ground over your head.

As an instance of what may be accomplished in this way, I may mention that I am acquainted with an officer of the Guards, who is able to raise a dumb-bell of 140 pounds weight over his head; but this is of course quite an exceptional case, showing the possession of very extraordinary muscular power.

Clubs of different weights are also very useful, and a *course of various* movements with them will be found

very beneficial by those who have not the opportunity of practising on other apparatus.

The "Chest Machine" is an apparatus which is made in forms more or less simple, and the best specimens contain a very numerous series of movements which are all brought on to one set of weights, and therefore may be increased or decreased at pleasure, so that you may practise in your own dressing-room the various exercises of hanging by the arms, and pulling in various ways, sitting or standing, backward and forward, thus bringing into play the whole of the muscles.

These and other apparatus hardly requiring description, will be found in a well-appointed gymnasium, and will afford an almost infinite variety of forms in which exercise may be taken.

It is hardly necessary to tell you that there are some simple rules to be observed in practising.

One is, never overtire yourself by practice, as that will do more harm than good.

And be careful not to get into a heat, without having a wrapper handy to put on when you leave off.

And do not practise after a full meal. But these obvious considerations will present themselves to you.

Dress must also be suitable, as it is highly important to have all the limbs free and unfettered; and therefore light and loose garments, and gymnastic shoes, should be worn. A belt may be used by those who require it, but it is not indispensable.

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| Plugged ditto do. do. do. do. ... 1/—0 | 5 | 0 | |
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